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26 **IN THE UNITED STATES DISTRICT COURT**
27 **FOR THE NORTHERN DISTRICT OF CALIFORNIA**

28 MARK K. WASVARY, P.C., individually
29 and on behalf of all others similarly situated,

30 Plaintiff,

31 vs.

32 FACEBOOK, INC., a Delaware corporation.,

33 Defendant.

34 Case No.: _____

35 **CLASS ACTION COMPLAINT**

36 **JURY TRIAL DEMANDED**

1 Plaintiff alleges the following on behalf of itself and others similarly situated based on the
 2 review of public documents and information.¹

3 **INTRODUCTION**

4 1. This Complaint is brought on behalf of people and companies—including the
 5 named Plaintiff—who bought advertising from Facebook at anticompetitively inflated prices.
 6 Over the course of the past decade, Facebook devised, executed, and reaped the benefits of a
 7 scheme to unlawfully monopolize the market for social advertising. As a direct result, Facebook
 8 was able to (and in fact, did) charge supracompetitive prices for social advertisements to
 9 thousands of people and businesses, including Plaintiff Mark K. Wasvary, P.C.

10 2. The nature, and indeed, fact of the anticompetitive overcharge levied by Facebook
 11 on Plaintiff and others similarly situated was not known until very recently—because Mark
 12 Zuckerberg and his lieutenants throughout Facebook specifically worked to keep their
 13 anticompetitive scheme under wraps. But recent revelations—including publicly-revealed
 14 internal Facebook communications and documents—make indisputably clear that Facebook
 15 intentionally and unlawfully monopolized the social advertising market; charged
 16 supracompetitive prices to Plaintiff and other Facebook advertisers; lied about it to Plaintiff,
 17 developers, regulators, the press, and the public; and reaped billions of dollars in inflated social
 18 advertising revenues in the process.

19 3. Facebook acquired the power to raise prices through the anticompetitive scheme
 20 described below, and did so year after year with no competitive check.

21 4. By the end of 2010, after Facebook had emerged the victor among social networks
 22 such as MySpace and Friendster, Facebook faced a new threat from smartphones. Mobile
 23 applications (“apps”) on smartphones for the first time allowed users to access the Internet from

25 ¹ All references to internal Facebook documents are exclusively to those published by news
 26 organizations and other public sources, particularly NBC News. NBC’s documents were
 27 available at <https://dataviz.nbcnews.com/projects/20191104-facebook-leaked-documents/assets/facebook-sealed-exhibits.pdf>; and
 28 <https://dataviz.nbcnews.com/projects/20191104-facebook-leaked-documents/assets/facebook-exhibits.pdf>.

1 any location, on user interfaces controlled by touch, providing a distinct experience from desktop
2 or laptop computers. Special-purpose apps designed specifically for smartphones and
3 smartphone web browsers could not only access the Internet, but also users' address books—a
4 ready-made, proto-social network from which apps could draw.

5 5. The rise of smartphones immediately threatened Facebook's advertising business,
6 which had plateaued as Facebook rapidly approached its initial public offering in 2012. It was
7 clear that the digital future was moving toward mobile platforms, and Facebook's mobile product
8 was substandard. Indeed, most of the advertising market would soon be designed for mobile
9 platforms, and Facebook was likely to be left out. Mobile apps also threatened user engagement
10 on Facebook's core product (a desktop web app), and reduced engagement would in turn reduce
11 the demand for Facebook's targeted social advertising. Facebook faced a vicious negative
12 feedback loop that could destroy its business.

13 6. That is when, according to internal Facebook documents, Facebook's founder and
14 CEO, Mark Zuckerberg, as well as Facebook's most senior executives, hatched and
15 executed a plan to (a) neutralize any potential competition from tens of thousands of mobile
16 and mobile-friendly apps built using Facebook's own platform (called "Platform"), (b) conscript
17 apps on its Platform to bootstrap through large advertising purchases Facebook's fledgling
18 NEKO mobile advertising product with restrictive tying agreements, and (c) acquire, kill, or
19 clone competitors that could rival Facebook as a source of social user data, which would in turn
20 threaten Facebook as a preeminent and unopposed platform for social advertising.

21 7. Facebook executed its scheme with the help of spyware created by a company it
22 ultimately acquired, Onavo, which—by deceiving millions of mobile users into believing they
23 were downloading apps with utility (such as a virtual private network app)—provided Facebook
24 with real-time surveillance of its competitive threats. This real-time surveillance apparatus
25 allowed Facebook to identify mobile app developers from which to demand advertising purchases
26 or data sharing agreements. It also allowed Facebook to identify rapidly growing threats to its
27 core social networking product—such as Instagram and WhatsApp, which Facebook acquired,
28 and Snap, which Facebook failed to acquire and instead cloned.

1 8. From 2012 through 2015, Facebook quietly executed its scheme. Its senior
2 lieutenants cataloged and bucketed third-party apps on its Platform according to whether they
3 were aligned with Facebook's business, were competitive or potentially competitive with
4 Facebook, or were to be destroyed. During this same period, Facebook's senior-most
5 engineers—many acting under protest—prepared to gut Facebook's Platform of its most
6 important functionality.

7 9. The functionality Facebook would remove from its Platform went to the heart of
8 the Platform itself—the application programming interfaces relied on by apps to traverse
9 Facebook's network of user connections and to access user timelines and/or news feeds (the
10 "Core APIs").

11 10. Facebook decided to deceptively announce the scuttling of its own Platform at its
12 "F8" conference held on April 30, 2014. That is, out of concerns that the announcement would
13 cause vocal protests among developers whose business would be destroyed by the move,
14 Facebook planned to bury the announcement under a broader announcement about its Facebook
15 Login product. Internally, Facebook's senior executives and engineers referred to this plan to
16 bury the change as the "switcharoo plan."

17 11. On April 30, 2014, at F8 2014, Facebook, as planned, misleadingly folded in the
18 announcement that the Core APIs would be removed with its announcements surrounding
19 Facebook's Login product. The alleged premise of the conference and of the Login product
20 changes was to allow users more control over their data. Facebook did not even mention the
21 APIs it was withdrawing at the conference, quietly announcing the deprecation of the Core APIs
22 in a change log, and falsely stating in an FAQ that Facebook would be removing "rarely used"
23 APIs.

24 12. On April 30, 2015, one year after its deceptive FAQ, Facebook ejected 40,000
25 apps from its Platform by breaking them. At and around that time, Facebook communicated more
26 pretext surrounding its decision, systematically lying to developers and telling them that
27 Facebook's API decisions were driven by user privacy and the need to curb privacy abuses.
28 Internally, however, Facebook's most senior executives had called those reasons "False" and

1 “pablum.”

2 13. While Facebook systematically lied to developers and the public about its
 3 Platform change, it quietly forced deals with targeted app developers on its Platform. These
 4 chosen developers could continue to use particular Core APIs (which Facebook told others were
 5 “going away” for everyone), so long as they entered into agreements with Facebook to (a)
 6 purchase large amounts of mobile advertising from Facebook, or (b) feed back their own users’
 7 data to Facebook. The agreements between Facebook and these developers were anticompetitive
 8 on their face.

9 14. Destroying or conscripting apps on its own Platform was not the only thing
 10 Facebook did as part of this scheme. Facebook also acquired, killed, or cloned companies that its
 11 deceptive spyware, Onavo, had identified as having rapidly obtained user engagement and large
 12 user bases. Most notably, Facebook acquired Instagram and WhatsApp to prevent these products
 13 from emerging as sources of data and user engagement that could fuel a rival social advertising
 14 platform. And when Snap rejected Zuckerberg’s \$3 billion acquisition offer, Facebook cloned
 15 Snap’s product with precision.

16 15. Over the course of several years beginning in approximately 2010-2011, the net
 17 effect of Facebook’s Platform changes, its unlawful agreements with app developers, its Onavo
 18 spyware, and its unlawful mergers and acquisitions was that Facebook (a) coerced massive
 19 advertising purchases from developers; (b) captured and exercised control over data that could
 20 otherwise fuel a rival social advertising platform through whitelist and data sharing agreements;
 21 (c) destroyed rivals not beholden to Facebook to prevent them from emerging as competing
 22 advertising platforms or sources of social data; and (d) destroyed apps that threatened user
 23 engagement with Facebook’s core product, and thereby Facebook’s social advertising products.

24 16. Facebook rapidly became the only source for highly valuable advertising that
 25 could precisely target networks of users in a social network. Facebook used this market power
 26 to repeatedly raise advertising prices every year since it began its scheme. Over the course of nearly
 27 a decade, Facebook has faced no meaningful competitive check on social advertising prices—
 28 and it has extracted supracompetitive revenues from advertisers like Plaintiff throughout this

period.

17. Plaintiffs are advertisers on Facebook’s advertising platform that were injured by paying supracompetitive prices for social advertising. Indeed, the prices they paid would have been lower if Facebook had not unlawfully monopolized the Social Advertising Market, as those prices would have been subject to competitive forces that would otherwise exist as a check on Facebook’s market power and monopoly.

18. Facebook managed to hide its anticompetitive scheme through (a) a code of secrecy in the face of a duty to speak truthfully and fully about its Platform, (b) affirmative false and pretextual statements to developers about the reasons for its decision to destroy its own developer ecosystem, and (c) false and misleading statements to regulators that approved Facebook’s acquisitions of WhatsApp and Instagram. Facebook’s ruse largely succeeded until internal documents, which were seized by the UK Parliament in 2018, were published in full by NBC News and other news organizations in November 2019.

PARTIES

I. PLAINTIFF

19. Plaintiff Mark K. Wasvary, P.C. is a Michigan corporation with its principal place of business in Troy, Michigan. Beginning in 2019, Plaintiff purchased advertising on Facebook's self-service advertising platform. Until no earlier than November 6, 2019, Plaintiff did not know, and could not reasonably have known, the truth about Facebook's anticompetitive conduct, including its purpose and intent to engage in anticompetitive conduct, nor could it have known that it had been injured by paying supracompetitive prices for advertising.

20. Plaintiff paid prices for advertising that were higher than they would have been absent Facebook's anticompetitive conduct and unlawfully acquired and/or maintained monopoly. Facebook caused Plaintiff to pay supracompetitive prices for advertising as a result of the market power it obtained and/or maintained as a result of the anticompetitive scheme described in this Complaint.

111

1 **II. DEFENDANT**

2 21. Defendant Facebook, Inc. (“Facebook”) is a publicly traded company,
 3 incorporated in Delaware. Facebook’s principal place of business and headquarters is located at
 4 1601 Willow Road in Menlo Park, California.

5 22. Founded in 2004 by Mark Zuckerberg, Facebook is a social media company that
 6 provides online services to billions of users around the world. In exchange for providing services,
 7 Facebook collects user data, which it uses to create and sell targeted advertising services.
 8 Facebook’s principal revenue is from targeted social media advertising that it provides to
 9 advertisers as a data broker.

10 23. Facebook also operates as a platform for third-party applications and hardware,
 11 and owns and operates several business divisions:

- 12 • Facebook. Facebook’s core application, which bears the company’s name, is,
 13 according to Facebook’s filing with shareholders, designed to enable “people
 14 to connect, share, discover, and communicate with each other on mobile
 15 devices and personal computers.” The Facebook core product contains a
 16 “News Feed” that displays an algorithmically ranked series of stories and
 17 advertisements individualized for each person.
- 18 • Instagram. Instagram is a photo-sharing application that allows users to share
 19 photos, videos, and messages on mobile devices. Instagram was acquired in
 20 April 2012 and at present, Facebook operates Instagram as a separate
 21 application from its core Facebook product.
- 22 • Messenger. Facebook’s Messenger application is a multimedia messaging
 23 application, allowing messages that include photos and videos to be sent from
 24 person to person across platforms and devices.
- 25 • WhatsApp. WhatsApp is a secure messaging application used by individuals
 26 and businesses. WhatsApp was acquired by Facebook in 2014 for \$21.8
 27 billion, and at the time had approximately 450 million users worldwide.
- 28 • Oculus. Oculus is Facebook’s virtual reality hardware line of business, which

1 Facebook acquired in March 2014 for approximately \$2 billion.

2 24. Facebook's revenue as of year-end 2019 was \$70.70 billion (up 27% from the
 3 previous year), with net income from operations of \$23.99 billion. Almost all of this revenue
 4 came from advertising, particularly mobile advertising. As of year-end 2019, Facebook
 5 maintained \$54.86 billion in cash and cash-equivalent securities. Facebook employed 44,942
 6 people around the world at the end of 2019 (up 26% from the previous year).

7 25. For the 2019 fiscal year, Facebook reported to investors that on average it had 1.66
 8 billion daily active users of Facebook and Messenger ("DAUs") (up 9% from the previous year)
 9 and 2.50 billion monthly active users ("MAUs") (up 8% from the previous year). Facebook also
 10 reported that on average it had 2.26 billion daily active people ("DAP") who used any Facebook
 11 product (up 11% from the previous year) and 2.89 billion monthly active people ("MAP") (up
 12 9% from the previous year).

13 JURISDICTION AND VENUE

14 26. This action arises under Section 2 of the Sherman Antitrust Act (15 U.S.C. § 2)
 15 and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15, 26). The action seeks to recover
 16 treble damages, interest, costs of suit, equitable relief, and reasonable attorneys' fees for damages
 17 to Plaintiff and members of the Classes resulting from Defendant's restraints of trade and
 18 monopolization of the Social Advertising Market described herein.

19 27. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 (federal
 20 question), 1332 (class action diversity jurisdiction), and 1337(a) (antitrust); and under 15 U.S.C.
 21 § 15 (antitrust).

22 28. Venue is appropriate in this district under 15 U.S.C. § 15(a) (Clayton Act), 15
 23 U.S.C. § 22 (nationwide venue for antitrust matters), and 28 U.S.C. § 1391(b) (general venue
 24 provision). Facebook transacts business within this district, and it transacts its affairs and carries
 25 out interstate trade and commerce, in substantial part, in this district.

26 29. The Court has personal jurisdiction over Facebook as it is subject to general
 27 jurisdiction in the State of California, where it maintains its headquarters and its principal place
 28 of business. The scheme, conspiracy, and monopolization alleged in this Complaint was targeted

1 at individuals throughout the United States, causing injury to persons in the United States,
 2 including in this district.

3 **INTRADISTRICT ASSIGNMENT**

4 30. This action is properly assigned to the San Francisco Division of this District,
 5 pursuant to Civil Local Rule 3-2(c) and (d), because Facebook is headquartered in San Mateo
 6 County (which is served by the San Francisco Division), and a substantial part of the events or
 7 omissions that give rise to the claims occurred there.

8 **FACTS**

9 **III. FACEBOOK EMERGES AS THE DOMINANT SOCIAL NETWORK**

10 **A. The Last Social Network Standing**

11 31. Facebook's meteoric rise since its founding in 2004 is well documented. The
 12 company—started in the dorm room of its CEO Mark Zuckerberg as “the facebook”—rose to
 13 prominence in the face of fierce competition from several social networks. Initially an exclusive
 14 service for elite universities throughout the United States, Facebook eventually expanded its
 15 network to encompass a general audience of users throughout the United States and worldwide.

16 32. Between 2004 and 2010, Facebook vanquished a number of rivals to emerge as
 17 the dominant social network in the United States.

18 33. Facebook's first chief competitor was MySpace. Founded in 2003 (a year before
 19 Facebook), MySpace targeted the same audience, provided largely the same services, and rapidly
 20 attracted an enormous number of users. By 2005, MySpace had 25 million active users, and was
 21 acquired by NewsCorp for \$580 million. In 2006, MySpace registered 100 million users, passing
 22 Google as the most visited website in the United States.

23 34. However, the next three years featured a steady downward spiral for MySpace—
 24 and countervailing growth by Facebook. In 2008, Facebook passed MySpace in worldwide
 25 active users and continued to grow, reaching 307 million active users across the globe by April
 26 2009. In May 2009, Facebook passed MySpace in United States, 70.28 million to 70.26 million
 27 monthly active users.

28 35. MySpace never came close to Facebook again. By 2010, MySpace had mostly

1 exited the market, leaving the business of social media for good. MySpace's CEO capitulated in
 2 November of 2010: "MySpace is not a social network anymore. It is now a social entertainment
 3 destination." In September 2010, MySpace reported that it had lost \$126 million, and in June
 4 2011, NewsCorp sold the company for \$35 million—\$545 million less than it had paid just six
 5 years earlier. By then, its user base had dwindled to just 3 million monthly visitors.

6 36. During the same time period, several other social networks also met their demise,
 7 including Google's Orkut, AOL's Bebo, and Friendster, which failed to scale rapidly enough to
 8 compete with MySpace and Facebook.

9 37. By 2009 and through 2010, Facebook emerged as the only peer-to-peer social
 10 media network to exist at scale, and no other network or company rivaled Facebook's massive
 11 user base. On March 2, 2010, *Adweek* reported that Facebook had booked revenues of up to \$700
 12 million in 2009 and was on track for \$1.1 billion in 2010—almost all from advertising to its
 13 newly won users. Facebook had been roughly doubling its revenues every year up until that
 14 point—\$150 million in 2007, \$280-300 million in 2008, and \$700 million in 2009.

15 38. Time Magazine heralded Zuckerberg as its 2010 Person of the Year.



27 ///

28 ///

1 39. Time's cover story set out the stakes—the scope of the newly assembled social
 2 network was unprecedented and staggering:

3 What just happened? In less than seven years, Zuckerberg
 4 wired together atwelfth of humanity into a single network,
 5 thereby creating a social entity almost twice as large as the
 6 U.S. If Facebook were a country it would be the third largest,
 7 behind only China and India. It started out as a lark, a
 8 diversion, but it has turned into something real, something
 9 that has changedthe way human beings relate to one another
 10 on a species-wide scale. We are now running our social lives
 11 through a for-profit network that, on paperat least, has made
 12 Zuckerberg a billionaire six times over.

13 40. By 2010, Facebook was unrivaled and dominant in a way no company since
 14 Microsoft had been in post-personal-computer history. And it had done so by riding the currents
 15 of powerful network effects.

16 **B. A New Market of Its Own Creation**

17 41. By the beginning of the millennium's second decade, Facebook was the
 18 indisputable kingof an entirely new market—a market built not on hardware or operating system
 19 dominance, but one builton a network of people, with its power and value directly derived
 20 from their engagement with that network. The more data users fed into Facebook by
 21 communicating and interacting with each other, posting their pictures, and publishing their
 22 content, the more valuable the Facebook network became to third parties, who could advertise
 23 to Facebook's users by targeting them using the very information theyprovided to Facebook's
 24 network.

25 42. Data about what information users shared on their personal pages; the photos and
 26 profilesthey viewed; their connections to others; what they shared with others; and even what
 27 they put in messages to other users all allowed targeted advertising on a scale that had never
 28 before existed. Unlike search advertising, Facebook's advertising platform allowed advertisers
 to target Facebook's user base by their attributes and behavior, not by a query entered into a
 search box. More importantly, unlike in search, user identity was not only discoverable, it was
 willingly provided by users—as was the identity of those users' closest friends and family

1 members. These identities could be tracked and targeted throughout the Internet.

2 43. This social data created by Facebook's network of engaged users could be
 3 monetized in a number of ways. The data could be resold for targeted advertising and machine
 4 learning; Facebook's machine learning algorithms mined patterns in the data for advertisers,
 5 which allowed advertisers to reach precisely the right audience to convert into sales, user signups,
 6 or the generation of sales leads. The data also could be sold by commercializing access—for
 7 example, by providing application developers, content generators, and advertisers with direct
 8 access to the information embedded in Facebook's network, such as the interconnection between
 9 users, user attributes, and user behavior. That data then could be mined by these third parties.

10 44. All of the methods of monetizing social data were based on selling that data, but
 11 such data could be packaged, structured, or mined differently depending on the application for
 12 which it was being sold. For advertisers, Facebook's network presented advertisers and Facebook
 13 itself with entirely new social signals, such as relationships, events, friendships, and granular
 14 interests. Movies, music, and books were inherent parts of a user's profile. The amount of
 15 information in Facebook's network that could be mined as social data was unprecedented—and
 16 Facebook received all that data daily from its millions of users in the United States and
 17 worldwide.

18 45. The data Facebook collected was uniquely social, derived from the engaged
 19 interactions and strong identity of Facebook's users. Twitter, a public-facing social network,
 20 loosely enforced identity and never required users to disclose granular details about themselves.
 21 Facebook stood alone in this regard, with a clear product emphasis on individuals and their
 22 connections to others. In 2010, Google, Yahoo, and the other major online advertising sources
 23 competed in an entirely different market—one based on search data. The data Facebook had at
 24 its disposal was not fungible with search data—it was actionable data about individual users,
 25 with their identities fully ascertainable.

26 46. By 2010, Facebook stood alone as the dominant player in the newly emergent
 27 market for social advertising—a market in which Facebook's own users provided Facebook with
 28 a constant stream of uniquely valuable information, which Facebook in turn monetized through

1 the sale of advertising. Advertisers, finding no substitute from any other company, paid top dollar
 2 for Facebook's powerful targeting and actionable data, and some of those advertisers—wittingly
 3 or not—even fed crucial data about themselves, their products, and the efficacy of their targeting
 4 back to Facebook's network.

5 47. As Facebook itself explained to third-party developers in May 2007, Facebook's
 6 core value proposition and business model was “providing access to a new kind of data—social
 7 data, which enables you to build applications that are relevant to users.” With respect to that data,
 8 Facebook told developers: “You are on a level playing field with us. You can build robust apps,
 9 not just widgets. Complete integration into the Facebook site.” By 2010, it was clear that
 10 Facebook's entire business was selling this new form of “social data” and that it would do so by
 11 selling access to developers and selling advertisements targeting Facebook's network of engaged
 12 and active users.

13 C. The Social Data Barrier to Entry

14 48. As Facebook's dominant position emerged in 2010, powerful network effects and
 15 feedback loops took hold and solidified that position. Data provided by users made Facebook's
 16 network more valuable, thereby attracting more users to the network. As a typical use case, a
 17 Facebook user would invite his closest friends and family, who would then invite and engage
 18 with other friends and family members who existed on the network. A familiar feedback loop—
 19 a virtuous circle—emerged, rapidly growing Facebook's user base.

20 49. The content generated by this user base, in turn, increased the value of the
 21 Facebook network. With each photograph, relationship status, check-in, or post by a Facebook
 22 user, the Facebook network became more valuable, not just as a means of communicating with
 23 directly connected acquaintances, but as a means of learning about more remotely connected
 24 ones.

25 50. As Samuel Lessin, then Facebook's VP of Product Management, explained to
 26 Mark Zuckerberg in an internal email on October 26, 2012, the data Facebook collects makes
 27 Facebook progressively more proficient at collecting and monetizing data:

1 One of the things that puts us currently in a very defensible place
 2 is the relationship we have created between the people using
 3 Facebook all the time, and us having the information we need to
 4 make Facebook a better product. This is the fundamental insight in
 5 something like coefficient. ***We know more about what people want***
to see because people look at more stuff on our platform. In this
 6 respect, while there are other ways to get close, it feels viscerally
 correct that there is an ROS dynamic at play, ***the more people that***
use the system, the more information we have on how to make
more people use the system.

7 (emphasis added).

8 51. A barrier to entry emerged from this feedback loop. To compete with Facebook,
 9 a new entrant would have to rapidly replicate both the breadth and value of the Facebook
 10 network—a task a mere clone of that network could not accomplish. Indeed, to compete with
 11 Facebook, a competitor would not only have to build its own vast network, but would have to
 12 draw active social engagement on a massive scale—which likely would require drawing a vast
 13 quantity of Facebook users away from that platform. The costs to switch would be massive: an
 14 entrant-competitor would have to present an overall value proposition to users that not only
 15 exceeded that of Facebook’s entrenched network, but one that did so handily. Moreover, to
 16 compete with Facebook’s virtuous circle, the value delivered by an entrant- competitor platform
 17 would have to facilitate social data mining that would create even more value for users,
 18 developers, and advertisers. This barrier to entry is referred to throughout this Complaint as the
 19 Social Data Barrier to Entry (“SDBE”).

20 52. The SDBE protects Facebook’s ability to control and increase prices in the Social
 21 Advertising Market without the pressures of price competition from existing competitors or new
 22 entrants. Because of its monopoly power in the Social Advertising Market and the SDBE,
 23 Facebook has been able to consistently increase the price it charges for social advertising. And
 24 this is exactly what Facebook has done since it obtained its dominant position in 2010.

25 53. From 2011 to 2012, for example, Facebook massively increased the prices it
 26 charged for its advertisements—one of the primary sales channels for its social data. That year,
 27 costs per thousand impressions (CPM) on Facebook increased by 41%, with a 15% increase in the
 28 last quarter of 2011 alone. Cost per click (CPC), which is a measure of advertising costs paid on

1 a by-click basis, rose 23% that same year. Facebook increased prices for social advertising as it
 2 also grew the number of advertisementsit displayed on its site, indicating monopoly power in the
 3 Social Advertising Market.

4 54. Facebook maintained that power over its prices through 2013, with a 2.9x
 5 increase in CPMs year over year. The increase came as overall advertising revenues increased
 6 yet again—that year by a staggering 83% over the last.

7 55. These price increases would not be possible without the SDBE. If a rival network
 8 existedwith comparable social data available for sale through advertising, Facebook's price
 9 increases would have been met with customer migration to the comparable rival. But Facebook
 10 had no such rival and was unfettered in its ability to increase process, even while rapidly
 11 increasing its supply of data for sale through advertisement.

12 **Figure 1: Retail Facebook CPM, Q4 2012 – Q4 2013**



20 56. Once Facebook had achieved dominance in the Social Advertising Market, its
 21 position only improved – and became more entrenched. The more advertising Facebook sold,
 22 and the more social data Facebook collected and packaged for sale, the more effective Facebook
 23 became at selling advertising, targeting users, and commercializing direct access to its users'
 24 social data (e.g., through APIs). This, in turn, made entry by a new rival impossible or
 25 prohibitively costly, thereby allowing Facebook to increase prices and make additional
 26 investments that deepened the SDBE moat surrounding its business.

27 ///

28 ///

D. Google's Failed Entry into the Social Advertising Market

57. In 2010, Google became desperate to enter the Social Advertising Market. It had tried several times to do so before, but each foray was met with failure. Google's Orkut social network, which was launched days before Facebook, was quickly overtaken. Wave, Google's social communication platform, never achieved any traction with users. And Google's Buzz social network—built on the back of its highly successful Gmail product—imploded quickly in early 2010.

58. Google's next attempt to enter the market attacked Facebook's functionality head-on, which meant attempting to penetrate the powerful SDBE protecting Facebook's business. Google made a massive, unprecedented investment of resources into building a product with enough value to lure users away from Facebook's broad, highly engaged social network.

59. In 2010, Google’s Vic Gundotra became the company’s Chief Architect. Gundotra pitched a new social network to Larry Page, Google’s cofounder, who returned as CEO of the company in 2011. Gundotra repeated an ominous refrain, “Facebook is going to kill us. Facebook is going to kill us,” which frightened Page into action.

60. Page greenlit a new product, Google+. Initially, Google+ sought to leverage Google's YouTube product to build its social network, requiring a Google+ account for access to certain key features of YouTube. In the face of significant user resistance, Google backed away from that requirement. Nonetheless, Google attempted, through Google+, to build out a "social graph" that would leverage a common user identity across Google products, including YouTube and Gmail.

61. In early 2011, Google began what insiders now refer to as “the 100-day march” toward launch of Google+. The product Google planned to deliver was, by any fair account, largely undifferentiated from what Facebook offered in terms of product features and functionality. By the summer of 2011, the planned features for Google+ included a continuous scroll product called the “stream” (a clone of Facebook’s “feed” product); a companion feature called “sparks,” which related the “stream” to users’ individual interests; and a sharing app called “Circles,” a purportedly improved way to share information with one’s friends, family, contacts,

1 and the public at large.

2 62. Unlike Google's past products, Google+ was not designed to organically grow
 3 and scale from small beginnings. From the outset, Google invested massive amounts of resources
 4 to bring a finished, full-scale social network to market. Calling the project "Emerald Sea,"
 5 Google conscripted almost all of the company's products to help build Google+. Hundreds of
 6 engineers were involved in the effort, which remained a flagship project for Page, who had
 7 recently reassumed the Google CEO role. Google's Gundotra was quoted explaining that the
 8 product that would become Google+ was a transformation of Google itself: "We're transforming
 9 Google itself into a social destination at a level and scale that we've never attempted—orders of
 10 magnitude more investment, in terms of people, than any previous project."

11 63. The amount of resources Google brought to bear stood in stark contrast to its
 12 previous attempts at penetrating the Social Advertising Market. Google had dedicated barely a
 13 dozen staff members to its previous failed social network product, Buzz. At its peak, Google+
 14 involved 1,000 employees from divisions across the country. Google, for example, ripped out its
 15 elaborate internal videoconferencing system and forced employees to use the Google+ Hangouts
 16 video chat feature, which one internal employee described as "janky." Employee bonuses were
 17 tied to the success of Google+. And the entire project was confined to a level of secrecy never
 18 before seen at Google.

19 64. Google+ was released on June 28, 2011. The product included the "stream," the
 20 "Circles" app, the "Hangout" video chat and messaging product, and a photo sharing product.
 21 The resemblance to Facebook was striking. As one internal Google employee commented: "this
 22 looks just like Facebook. What was the big deal? It's just a social network." Another Google
 23 employee was quoted as saying, "All this fanfare and then we developed something that in the
 24 end was quite ordinary." One thing was indisputable: with the release of Google+, Google had
 25 challenged Facebook head-on by effectively cloning Facebook's product.

26 Because Google's user base was already massive, the Google+
 27 product attracted millions of users shortly after launch. But though
 28 these users signed up for Google+, Google quickly found out they

were not using the product. As one former Google employee explained:

It was clear if you looked at the per user metrics, people weren't posting, weren't returning and weren't really engaging with the product. Six months in, there started to be a feeling that this isn't really working.

65. The problem for Google+ was the powerful network effect that reinforced the SDBE that protected Facebook. Google's clone of Facebook did not present enough new value to overcome massive network-based switching costs—the cost to Facebook users of shifting away from an existing networked product in which the users had actively invested their social data for years.

66. Paul Adams, a former Google+ user-experience team member, summed it up succinctly when asked why Google+ had failed:

What people failed to understand was Facebook and network effects. . . .

It's like you have this grungy night club and people are having a good time and you build something next door that's shiny and new, and technically better in some ways, but who wants to leave? People didn't need another version of Facebook.

67. By 2014, Google+ was declared a failure and Gundotra, its founder, eventually left Google. Within just a few years, Google—with all of its resources, developers, and existing user base—failed entirely to overcome the SDBE protecting Facebook. As long as Facebook controlled the data derived from an engaged and active user base, it could continue to keep that user base active and engaged.

68. The only way to disrupt this virtuous circle was with a rival product that provided significantly more or different value than Facebook, and that itself was propelled to scale by powerful network effects.

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1 **IV. A THREAT TO FACEBOOK'S MONOPOLY: THE RISE OF**
 2 **SMARTPHONES AND MOBILE APPS**

3 **A. The Mobile App Revolution**

4 69. In 2009 and 2010, as Facebook emerged the undisputed winner of the social media
 5 wars, another new market had begun to take hold. The launch of the Apple iPhone in 2007 created
 6 a market for a new type of cellular phone: one with a user interface capable of robust Internet
 7 connectivity and messaging. No longer constrained by numeric keypads for texting—or clunky,
 8 permanent alphanumeric keyboards attached to phones, such as with the Treo or Sidekick cellular
 9 phones—the iPhone dynamically displayed a multi-touch keyboard and came equipped with a
 full-featured web browser that rendered complete web pages.

10 70. By the summer of 2008, Apple's newest iPhone, the iPhone 3G, was released with
 11 onboard GPS and other hardware upgrades. Accompanying the release of the new iPhone was a
 12 new store for third-party applications that would run natively on the iPhone: the Apple App Store,
 13 which opened for business on July 10, 2008, the day before the release of the iPhone 3G.

14 71. Developers who launched their third-party applications via the App Store reaped
 15 huge rewards. There were approximately 500 apps available at the App Store's initial launch.
 16 Games using the iPhone's accelerometer became immediate successes, some quickly earning
 17 hundreds of thousands of dollars by selling downloads for just a few dollars each. Applications
 18 that exploited the new GPS functionality in the iPhone also quickly became popular. By
 19 September 2008, the Apple App Store had racked up 100 million downloads, and by 2009, it hit
 20 1 billion. iPhone apps had become a new means to deliver scaled value to countless users.

21 72. Google also launched what became its Play Store (initially known as Android
 22 Market) in 2008. It soon overtook Apple's App Store in terms of overall volume, with 82% growth.
 23 The mobile app revolution had begun.

24 73. Mobile apps rapidly proliferated, with huge opportunities for further growth—as
 25 the lion's share of cell phone activity by 2010 had become something other than making phone
 26 calls. For example, a 2010 Pew Research survey showed that taking pictures and sending text
 27 messages had become the most common uses for cellular phones among adults, with more than a
 28 third of adult cell phone users accessing the Internet, playing games, emailing, recording video,

1 or playing music through their cell phones. At the same time, 29% of adult cell phone users had
 2 used a downloaded app.

3 74. A 2010 Nielsen survey showed that games, news/weather, maps and navigation,
 4 and social networking were the most popular apps on cellular phones.

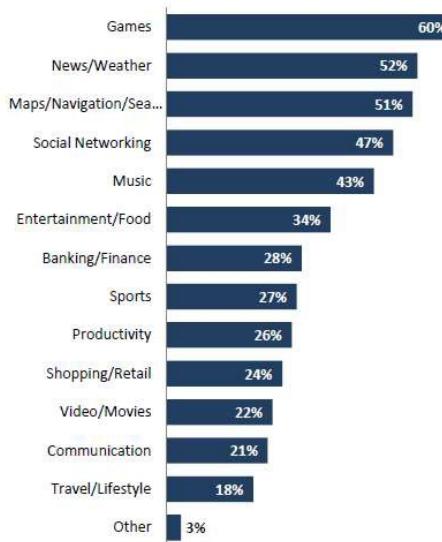
5 *% of adult cell phone users who do each of the following on their phone...*

Take a picture	76%
Send or receive text messages	72
Access the internet	38
Play a game	34
Send or receive email	34
Record a video	34
Play music	33
Send or receive instant messages	30
Use an app	29

13 Source: Pew Research Center's Internet & American Life Project, April 29-May 30,
 14 2010 Tracking Survey. N=1,917 adult cell phone users.

15 *What are the most popular types of apps?*

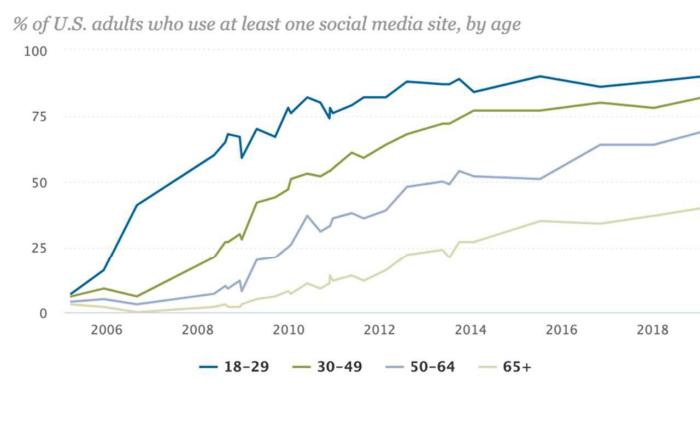
16 *% of Nielsen recent downloaders who have used each category
 of apps in the past month...*



25 Source: The Nielsen App Playbook, December 2009. N=3,962 adults who
 have downloaded an app in the 30 days prior to the survey.

27 75. Notably, mobile apps resonated most strongly with the demographics that had
 28 recently adopted social media and were providing their data to Facebook in droves. App users

1 among cell phoneowners were disproportionately younger, with 44% of app users in 2010 under
 2 the age of 20 and another41% between the ages of 30 and 49. These were the same demographics
 3 that were rapidly adopting socialmedia as part of their lives and providing Facebook with the
 4 social data that built and maintained the SDBE that protected its business.



11 Source: Surveys conducted 2005-2019.

12 PEW RESEARCH CENTER

13 76. Many of the mobile apps that were rapidly attracting users were doing so because
 14 they presented their own specialized value propositions. These apps had to be specialized because
 15 cellular phone screens were smaller, particularly in 2010, and mobile traffic was driven by
 16 specialty software, often designed for a single purpose. Users signed up for these apps with their
 17 e-mail addresses and personal information and interacted directly with the apps.

18 77. As WIRED Magazine described in 2010, a typical user moved from app to app,
 19 each with some specialized use:

20 You wake up and check your email on your bedside iPad—that's one app.
 21 During breakfast you browse Facebook, Twitter, and the New York
 22 Times—three more apps. On the way to the office you listen to a podcast
 23 on your smartphone. Another app. At work, you scroll through RSS feeds
 24 in a reader and have Skype and IM conversations. More apps. At the end
 25 of the day, you come home, make dinner while listening to Pandora,
 26 play some games on Xbox Live, and watch a movie on Netflix's
 27 streaming service.

28 78. In 2010, Morgan Stanley projected that within five years, the number of users
 29 who accessed the Internet from mobile devices would surpass the number who accessed it from
 30 PCs. The Internet was at an inflection point—the World Wide Web was no longer the dominant

1 way to access information. Users were obtaining their information from specialized walled
 2 gardens, and Facebook's own walled garden was one app away from being superseded.

3 79. The years leading up to 2010 saw the rise of streaming apps, such as Netflix and
 4 Pandora, and e-book readers, such as Kindle and iBooks. Apple's 2010 list of top-grossing
 5 iPhone apps included mobile games such as Angry Birds, Doodle Jump, Skee-Ball, Bejeweled
 6 2 + Blitz, Fruit Ninja, Cut the Rope, All-in-1 GameBox, the Moron Test, Plants vs. Zombies,
 7 and Pocket God. Facebook's mobile app topped the list of free downloads in the App Store, along
 8 with Words with Friends, Skype, and the Weather Channel App.

9 **B. Facebook Recognizes the Looming Threat Presented by Mobile
 10 Applications**

11 80. By 2011, Facebook realized that it had fallen behind. Facebook had just debuted
 12 its new "Timeline" product, a controversial modification of the Facebook feed that generated
 13 dynamic content for each user rather than a static series of posts visible to the user. Facebook
 14 had spent the last eight months prioritizing its desktop experience and its new Timeline product.
 15 But while it did so, mobile applications continued their meteoric rise.

16 81. Facebook's own mobile application was built on a technology called HTML5,
 17 which at the time was good for building web pages but not for building mobile apps native to
 18 iOS and Android smartphones. As a result, Facebook's mobile app was buggy, prone to crashes,
 19 and painfully slow. As Zuckerberg would lament years later about HTML5, "We took a bad bet."

20 82. Zuckerberg reflected in 2018 that Facebook had fallen behind when mobile apps
 21 emerged:

22 One of my great regrets in how we've run the company so far is I feel
 23 likewise didn't get to shape the way that mobile platforms developed as
 24 much as would be good, because they were developed
 25 contemporaneously with Facebook early on. I mean, iOS and Android,
 they came out around 2007, we were a really small company at that
 point – so that just wasn't a thing that we were working on.

26 83. As mobile apps rose, Facebook's desktop product acquired users at a slower pace.
 27 All of this occurred as Facebook was planning its initial public offering. Facebook knew that its
 28 position was eroding and that if mobile growth continued, its IPO debut would be in the midst

1 of material changes to its business, undermining Facebook's financial and qualitative disclosures
 2 to public investors.

3 84. But there was no avoiding the issue. Facebook held its IPO on May 18, 2012. By
 4 the time Facebook released its first annual report, the trend was unmistakable—the transition to
 5 mobile devices from desktop web-based applications posed an existential threat to Facebook's
 6 business. In its 2012 Form 10-K, Facebook disclosed this risk to shareholders as one of the factors
 7 that affected its bottom line:

8 ***Growth in the use of Facebook through our mobile products as a
 9 substitute for use on personal computers may negatively affect our
 revenue and financial results.***

10 We had 680 million mobile MAUs in December 2012. While most of our
 11 mobile users also access Facebook through personal computers, we
 12 anticipate that the rate of growth in mobile usage will exceed the growth
 13 in usage through personal computers for the foreseeable future and that the
 14 usage through personal computers may decline or continue to decline in
 15 certain markets, in part due to our focus on developing mobile products
 16 to encourage mobile usage of Facebook. For example, during the fourth
 17 quarter of 2012, the number of daily active users (DAUs) using personal
 18 computers declined modestly compared to the third quarter of 2012,
 19 including declines in key markets such as the United States, while mobile
 20 DAUs continued to increase. While we began showing ads in users' mobile
 21 News Feeds in early 2012, we have generated only a small portion of our
 22 revenue from the use of Facebook mobile products to date. In addition, we
 23 do not currently offer our Payments infrastructure to applications on
 24 mobile devices. If users increasingly access Facebook mobile products as
 25 a substitute for access through personal computers, and if we are unable
 26 to continue to grow mobile revenues, or if we incur excessive expenses in
 27 this effort, our financial performance and ability to grow revenue would
 28 be negatively affected.

22 C. The Facebook Platform

23 85. Although Facebook faced a looming threat from mobile applications, it
 24 maintained an important source of leverage: its social data. Facebook possessed (and continued
 25 to receive) vast quantities of information about its massive user base, including how each user
 26 was connected to others. This information was valuable to both new and existing mobile
 27 applications, which could leverage Facebook's social data to obtain new users and to build novel
 28 social features, functions, and apps.

1 86. Facebook referred to its network as its “Graph,” coined after a mathematical
 2 construct that models connections between individual nodes. The Facebook Graph contained
 3 user “nodes,” with connections and information exchanged among nodes as “edges.” Facebook
 4 coined the term “Open Graph” to describe a set of tools developers could use to traverse
 5 Facebook’s network of users, including the social data that resulted from user engagement.

6 87. Importantly, Open Graph contained a set of application programming interfaces
 7 (“APIs”) that allowed those creating their own social applications to query the Facebook network
 8 for information. As Facebook explained in its 2012 Form 10-K:

9 **Open Graph.** Our underlying Platform is a set of APIs that developers
 10 can use to build apps and websites that enable users to share their
 11 activities with friends on Facebook. As Open Graph connected apps
 12 and websites become an important part of how users express
 13 themselves, activities such as the books people are reading, the movies
 14 people want to watch and the songs they are listening to are more
 prominently displayed throughout Facebook’s Timeline and News
 Feed. This enables developer apps and websites to become a key
 part of the Facebook experience for users and can increase growth and
 engagement for developers.

15 88. Open Graph, along with other Facebook products, such as its NEKO advertising
 16 and Payments products, comprised Facebook’s Platform. The Platform was vital to Facebook’s
 17 business because it ensured that engagement continued on Facebook. Without the Platform,
 18 Facebook would be required to build applications that increased the value of its network itself—
 19 meaning that Facebook would have to try to predict what applications users wanted; design, code,
 20 and scale those applications across its user base and network; and bear the risk and resource drain
 21 of guessing wrong and making mistakes.

22 89. Facebook did not have the resources to do this, so it decided instead to allow third
 23 parties to build applications for the Platform. As Mark Zuckerberg observed in a February 2008
 24 email to Facebook’s VP Engineering for Platform Michael Vernal, a senior Zuckerberg lieutenant
 25 who was in part responsible for creating Open Graph:

26 Platform is a key to our strategy because we believe that there will
 27 be a lot of different social applications. And we believe we can’t
 28 develop all of them ourselves. Therefore . . . It’s important for us
 to focus on it because the company that defines this social platform

1 will be in the best position to offer the most good ways for people
 2 to communicate and succeed in the long term.
 3

4 90. Put simply, Facebook could either speculate on new social applications by
 5 building them itself or it could provide a platform for others to do so. For years, Facebook opted
 6 to provide a platform until it was able to develop its own social applications.
 7

8 91. But Facebook also recognized that developers on its Platform could potentially
 9 pose a competitive threat. In its 2012 annual report, Facebook disclosed the following significant
 10 risk factor to its operations:
 11

12 In addition, Platform partners may use information shared by our
 13 users through the Facebook Platform in order to develop products or
 14 features that compete with us. As a result, our competitors may
 15 acquire and engage users at the expense of the growth or
 16 engagement of our user base, which may negatively affect our
 17 business and financial results.
 18

19 92. Thus, Facebook knew that competition could come from its own third-party
 20 application developers. But Facebook nevertheless actively sought developers to build
 21 applications on its Platform because of the potential to extract profits from the applications these
 22 developers built and the users they attracted to, and engaged on, Facebook's network.
 23

24 93. As Facebook explained to its investors in 2012, maintaining a Platform on which
 25 developers could build applications meant more engagement and therefore greater ad revenues
 26 for Facebook:
 27

28 Engagement with our Platform developers' apps and websites can
 29 create value for Facebook in multiple ways: our Platform supports
 30 our advertising business because apps on Facebook create
 31 engagement that enables us to show ads; our Platform developers
 32 may purchase advertising on Facebook to drive traffic to their apps
 33 and websites; Platform developers use our Payment infrastructure
 34 to facilitate transactions with users on personal computers; Platform
 35 apps share content with Facebook that makes our products more
 36 engaging; and engagement with Platform apps and websites
 37 contributes to our understanding of people's interests and
 38 preferences, improving our ability to personalize content. We
 39 continue to invest in tools and APIs that enhance the ability of
 40 Platform developers to deliver products that are more social and
 41 personalized and better engaged people on Facebook, on mobile
 42 devices and across the web.
 43

1 94. Facebook's Platform was valuable to Facebook in several important ways.
2

3 95. First, the Platform meant that new applications would be built on Facebook's
4 network, increasing the value of Facebook's network as the applications became more popular.
5 The increased engagement with Facebook as a result of these new applications translated to
6 better-targeted content and higher advertising revenues.
7

8 96. Second, Facebook would not need to spend significant resources to develop new
9 applications or test new business models—third parties would do that instead. Facebook could
10 merely wait for an application built for its Platform to gain widespread adoption, then either
11 build a competing application or passively glean the benefits of that popular application's user
12 engagement, including valuable new social data for Facebook and its network.
13

14 97. Third, access to Facebook's network was itself valuable to third-party developers,
15 so Facebook could charge developers—most notably, through API access and advertising
16 purchases—to access Facebook's Platform and the social data it collected from Facebook's
17 massive number of engaged users.
18

19 **D. The Profitable Open Graph Platform and Mobile Install Business**
20

21 98. Facebook continued to struggle to catch up with the new onslaught of mobile
22 applications, but it recognized that the new apps required aggressive user growth to be profitable.
23 Among other things, Facebook's APIs allowed mobile app developers to query the friends of a
24 person's friends, which allowed mobile applications to find other users who might be interested
25 in using their apps.
26

27 99. Mobile apps also could use Facebook to communicate across Facebook's network,
28 either directly with a user's friends or with others not directly connected with the user. A mobile
payment application, for example, could enable two strangers to pay each other, even if they
were not directly connected on Facebook—so long as both of them existed somewhere on
Facebook's Platform. A user of a dating application, such as Tinder, could use Facebook's APIs
to find a compatible date, either in the extended network of one's friends or beyond—anywhere
on Facebook's Platform.
29

1 100. Facebook quickly realized it could monetize the value of its network through
 2 third-party mobile applications, and it moved aggressively to do so, beginning with games built to
 3 run on Facebook's Platform. Those games, many of which were social games that allowed users
 4 to play with and against each other, sought above all else new users to increase their adoption.
 5 Facebook's Vernal sought to obtain a beachhead with these applications, monetizing each
 6 additional game install that resulted from the use of Facebook's Platform or from Facebook's
 7 advertising product, NEKO.

8 101. For example, Facebook included ads as "stories" on user timelines that indicated
 9 whether the user knew other users who were playing a particular game. Facebook then monetized
 10 such advertisements when the game obtained new users from them. As Vernal explained in a
 11 May 2012 e-mail:

12 The biggest/most efficient market segment for advertising on mobile
 13 today is driving app installs. This is at least partly because it's the
 14 most measurable—if you know that you get \$0.70 from every game
 15 you sell, then in theory you can afford to pay up to \$0.69/install. This
 16 kind of measurability allows for maximal bidding.

17 So, what we're trying to do is kickstart our sponsored stories
 18 business on mobile by focusing on one particular type of story (is-
 19 playing stories) and one market segment (games), make that work
 20 really well, and then expand from there.

21 102. Facebook thus leveraged its most valuable asset—the information it had about its
 22 users, their interests, and most importantly, their friends—to make money from the proliferation
 23 of mobile games.

24 103. Games like Farmville, a mobile application that allowed players to create their
 25 own simulated farms, quickly took off because of Facebook's Platform. Facebook increasingly
 26 recognized that it could obtain engagement from users through the game itself.

27 104. This strategy led to a broader one, in which Facebook drove app installs by
 28 allowing developers to advertise to its user base and traverse Facebook's social network through
 the Facebook APIs. Facebook collected a fee for each app install that resulted from its network.
 Vernal outlined the plan in detail.

1 Roughly, the plan:

2 1/ Create new iOS + Android SDKs, because the current ones are
 3 terrible. Ship Thunderhill so we get even broader adoption of our
 4 stuff.

5 2/ Wire them up to make sure we know when you're playing a
 6 game (so we can generate the same kind of is-playing stories we
 7 can on canvas).

8 3/ Generate a bunch of effective, organic distribution for these
 9 games via our existing channels (news feed, net ego on both
 10 desktop + mobile). Ship send-to-mobile, which allows us to
 11 leverage our desktop audience to drivemobile app traffic.

12 4/ Create an even better app store than the native app stores (our app
 13 center) and make a lot of noise about it, so developers know that
 14 they should be thinking about us to get traffic to their mobile apps.

15 5/ Introduce a paid offering, probably cost-per-install (CPI) based,
 16 where you can pay us to get installs from your mobile app. Primary
 17 channels for this paid distribution are News Feed and App Center
 18 (on desktop + mobile) as well as RHC on desktop.

19 105. The strategy was clear, not just for gaming, but for mobile apps. Facebook would
 20 make money by allowing app developers to leverage its user base. Facebook would advertise
 21 social games to its users by plumbing their social data—including data about when they played
 22 games and which of their friends played them—and in exchange, Facebook would receive some
 23 amount of money per install, which would be the app developer's cost-per-install (CPI). The same
 24 plan would work for mobile applications generally.

25 106. By the end of 2011 and the beginning of 2012, Facebook began discussing other
 26 ways to monetize its Platform, including its Open Graph APIs. One way was to sell API access
 27 based on usage. Zuckerberg and top executives at Facebook extensively debated a tiered
 28 approach to API access. Facebook deliberated over a pricing model for API access, and internally
 decided that it would be possible to sell API access to third-party developers. Facebook also
 decided that it could bundle API access with the ability to advertise on Facebook. However, as
 explained below, Facebook gave up the profits it could glean from API access for the chance to
 dominate the Social Advertising Market entirely, excluding competitors (both actual and

1 potential) and leveraging network effects to achieve and maintain monopoly power.

2

3 **V. FACEBOOK WEAPONIZES ITS PLATFORM TO DESTROY**
COMPETITION

4 **A. Facebook Makes Plans to Remove Vital Friends and News Feed APIs**
and Refuses to Sell Social Data to Competing Application Developers

5

6 107. Although Facebook had made significant amounts of revenue and profit selling
 7 access to its social data through its APIs and its NEKO advertising system and had planned to
 8 expand that business, it chose not to, sacrificing those significant profits.

9

108. By the end of 2011 and the beginning of 2012, Zuckerberg along with Facebook's
 11 Vice President of Growth, Javier Olivan, its VP of Product Management, Samuel Lessin, and
 12 Michael Vernal internally debated a plan to prevent third-party developers from building their
 13 own competing social networks that could be capable of generating engagement and social data
 independent of Facebook's Platform.

14

109. Emerging mobile applications such as Line, WeChat, and Instagram were
 15 creating their own vast user bases with identity and login features separate from the Facebook
 16 Platform. Their increasing ubiquity posed an existential threat to Facebook's core business,
 17 which relied heavily on engagement from its user base. These applications provided
 18 quintessentially social applications, such as image sharing, messaging, and payments—a direct
 19 threat to Facebook's own applications, including Facebook's own fledgling Messenger
 20 application.

21

110. Mobile applications were rapidly eating away at Facebook's dominance, which
 22 relied heavily on its web-based desktop product. Zuckerberg openly acknowledged that its
 23 desktop applications were not the future and that native phone apps would dominate the mobile
 24 web in the future.

25

111. Zuckerberg therefore sought to consolidate core applications into its own
 26 centralized Facebook application, noting in a March 2012 Q&A with employees that Facebook
 27 was “building towards social Facebook versions where you can use the individual app or the
 28 Facebook version.” That is, users could “replace whole parts of your phone with these Facebook

1 apps and [they] will be a whole package for people.”

2 112. Beginning in the fall of 2011 and well into 2012, Mark Zuckerberg and his
 3 chieflieutenants, Lessin and Vernal, planned to address the looming mobile applications threat.
 4 Their solutionwas a scheme to disrupt the massive growth of mobile applications by attracting
 5 third-party developers to build for Facebook’s Platform and then remove their access to the APIs
 6 that were most central to their applications. They would accomplish this by leveraging
 7 Facebook’s “Friends” and “Timeline” APIs, as well as other vital APIs, including those relating
 8 to messaging.

9 113. The Friends APIs let third-party developers traverse the Facebook Graph,
 10 searching through a user’s friends as well as the friends of their friends. Zuckerberg and his
 11 executives proposed modifying the APIs to deny third-party developers access to information
 12 about a user’s friends (and the friends of their friends) unless that developer’s application was
 13 already installed by a user’s friends to begin with. This ensured that new applications could not
 14 obtain new users or use Facebook’s social datato increase the value of their application.

15 114. Facebook also foreclosed developers from continuing to extract information about
 16 a user’sfriends from their timeline or news feed. Thus, third-party applications that relied on the
 17 stream of information that flowed through a user’s news feed, such as a post about a friend of
 18 the user getting engaged or sharing a news article, would be abruptly left with none of the social
 19 data they needed to function.

20 115. Removing access to these APIs halted the growth of tens of thousands of third-
 21 party applications that relied on these essential APIs and were, in Facebook’s view, threatening
 22 Facebook’s dominance by eroding the SDBE that protected Facebook’s business.

23 116. Facebook’s plan prevented any competitive third-party application from buying
 24 social data from Facebook, either through its Platform APIs or through its advertising Platform.
 25 As Vernal explained to Lessin in August of 2012, Facebook would “not allow things which are
 26 at all competitive to ‘buy’ this data from us.”

27 117. Facebook thus refused to sell its social data to any competitive third-party
 28 developer, sacrificing significant short-term profits in exchange for a competitive advantage in

1 the Social Advertising Market. If not for the prospect of driving these competitors out of the
 2 markets in which Facebook competed, the decision to refuse to sell social data to third-party
 3 developers made no economic, technical, or business sense.

4 118. Third-party developers with successful applications increased the value of
 5 Facebook's overall network by increasing engagement and generating the very social data
 6 Facebook sold through its targeted advertising channels, including to developers. As Zuckerberg
 7 had observed years earlier, Facebook itself could not broadly develop new third-party apps or
 8 anticipate what apps would be successful, so it relied on third parties to do so. Refusing API and
 9 social data access to third parties meant that they could not develop the applications that were
 10 vital to Facebook's growth, engagement, and advertising revenue. Facebook decided to
 11 deliberately sacrifice the value its third-party developers provided to secure dominance in the
 12 Social Advertising Market.

13 **B. Facebook's Social-Data Heist**

14 119. In May 2012, Zuckerberg decided to use the threat of blacklisting from its
 15 Platform to extract precious social data from some of Facebook's competitors. He instructed his
 16 executives to quietly require "reciprocity" from major competitors that used Facebook's Platform.
 17 The reciprocity Zuckerberg demanded was the very lifeblood of these competitors' businesses—the
 18 social data harvested from user engagement on their competing networks.

19 120. By the middle of 2012, Facebook began to block some of its competitors from
 20 using its Platform and thereby obtaining Facebook's social data. Facebook had already blocked
 21 Google, including its competing social network Google+, from access to Facebook's APIs and
 22 advertising platform. With respect to Twitter, Instagram, Pinterest, and Foursquare, Facebook
 23 would demand "reciprocity" or blacklist them. Reciprocity, of course, meant that these
 24 competing social networks would have to hand over their most valuable asset—their social
 25 data—to their rival Facebook.

26 121. If rivals did not comply with Zuckerberg's demands to hand over their social data
 27 to Facebook, Facebook would simply take it. In May 2012, Vernal directed his subordinates,
 28 Douglas Purdy (Director of Engineering for Platform) and Justin Osofsky (VP of Global

1 Operations), to build “our ownhacky scraper” and a “bunch of scrapers” to crawl rival sites like
 2 Twitter and Instagram and harvest theirsocial data—with or without their consent. If Twitter or
 3 Instagram refused to agree to Zuckerberg’s “reciprocity” proposition, Facebook would use the
 4 scrapers to obtain the data instead.

5 122. In August 2012, Facebook considered broadening its list of companies to shake
 6 down forsocial data—or to block entirely from Facebook’s Platform. That month, Facebook’s
 7 then VP of Businessand Marketing Partnerships, David Fischer identified other potential product
 8 categories and competitivecompanies in each category to block:

9 I’d expect that a large part of the market for our network will come
 10 from current and potential competitors. Here’s the list that Jud
 11 worked up of what we’d likely prohibit if we were to adopt a ban on
 12 “competitors” usinga broad definition:

- 13 • Social network apps (Google+, Twitter, Path, etc.)
- 14 • Photo sharing apps (Picasa, Flickr, LiveShare Shutterfly,
 etc.)
- 15 • Messaging apps (WhatsApp, Viber, Imo, KakaoTalk, etc.)
- 16 • Local apps (Google+ local, Google Offers, Yelp, yp, etc.)
- 17 • Social search apps (HeyStaks, Wajam, etc.)
- 18 • Platforms (Google Play, Amazon, etc.)

19 123. Facebook thus identified its direct, horizontal competitors for social data,
 20 including thosecompetitors that had, or could create, rival social advertising platforms. These
 21 categories of competing applications, particularly on mobile platforms, threatened Facebook’s
 22 business because they created social networks independent of Facebook, each capable of
 23 generating their own valuable social data. If Facebook lost control over these companies, it would
 24 lose access to the social data they generated, whichmeant Facebook’s own product could not
 25 drive engagement and sell advertising.

26 124. In August 2012, Facebook gave a presentation to its Board of Directors that
 27 included various revenue models to monetize its Platform, including its APIs. The Board
 28 understood that Facebookcould monetize its Platform by charging per company, per application,
 per user, or per API call.

29 125. But Facebook opted to do none of those things. Instead, it decided to sacrifice those
 30 profitsin the short term to obtain complete control over the growing mobile application and

1 advertising markets, thereby maintaining and furthering its dominance of social data and the
 2 Social Advertising Market.

3 126. Facebook's plan was to instead block competitors from using its Platform,
 4 thereby preventing them from eroding the SDBE that protected Facebook's business. In the case
 5 of a select few companies with social data that Facebook needed to maintain and grow its own
 6 business, however, Facebook would coerce them into agreements to share their most valuable
 7 social data with Facebook. If they refused, Facebook would blacklist them and take it from them
 8 anyway with its own crawling software that would scrape their public-facing site for information.

9 127. In September 2012, Zuckerberg formalized his order to shut down the Friends
 10 and NewsFeed/Timeline APIs and to coerce rivals into providing their valuable data to Facebook
 11 on pain of blacklisting. On October 30, 2012, Vernal notified his subordinates of Zuckerberg's
 12 decision:

13 We are going to dramatically reduce the data we expose via the Read
 14 API We are going to change friends.get to only return friends
 15 that are also using the app Since friends.get will only return
 16 other TOSed users' data [data from users that agreed to an
 17 application's terms of service], that means we no longer need the
 18 friends' permissions. We are going to remove/whitelist access to the
 Stream APIs [the News Feed API]. We are going to limit the ability
 for competitive networks to use our platform without a formal deal in
 place We are going to require that all platform partners agree to
 data reciprocity.

19 128. This decision meant several things: (1) when a third-party application called the
 20 Friends APIs, it could not obtain information about a user's other friends unless those friends
 21 already had installed the application; (2) the News Feed APIs would no longer provide information
 22 about a user's connections; (3) access to those API could be "whitelisted" for third-party
 23 developers that were offered—and agreed to—data reciprocity; and (4) reciprocity would be
 24 required for any access to the APIs.

25 129. In November 2012, Osofsky, who was then head of Facebook's Platform,
 26 summarized the policy changes required by the decision:

27 Policy changes: define competitive networks + require they have a
 28

1 deal with us, regardless of size. Maintain size-based thresholds for
 2 all other developers to force business deals. Require data
 3 reciprocity for user extended info to ensure we have richest
 4 identity.

5 130. Facebook knew that these changes would eliminate the “growth channel used by
 6 23% of all Facebook apps” and that 89% of the top 1,000 iPhone apps relied on the full friends
 7 list API, with 75% of the top 1,000 iPhone apps relying on the Friends permissions APIs.
 8 Facebook determined that popular applications on its platform with millions of customers would
 9 break as a result of the decision including FarmVille, ChefVille, CityVille, Skype, Spotify,
 10 Xobni, Texas Holdem, Yahoo, Trip Advisor, Microsoft’s Birthday Reminders, Samsung’s clients,
 11 Glassdoor and dozens of others.

12 131. On November 19, 2012, Zuckerberg broadly announced his decision to block
 13 competitors or require full data reciprocity for continued access. Facebook’s COO Sheryl
 14 Sandberg immediately ratified the decision, adding that “we are trying to maximize sharing on
 15 Facebook, not just sharing in the world,” with the note that the distinction was a “critical one” and
 16 the “heart of why.”

17 132. Facebook began preparing its 2013 plan for its mobile advertising business, which
 18 included the launch of a new version of its Platform, version 3.0. Platform 3.0 would (according
 19 to Facebook) facilitate Facebook’s transition from its desktop advertising business to a mobile
 20 advertising business. A central element of the transition plan was the implementation of
 21 Zuckerberg’s decision to remove the Friends and News Feed APIs.

22 133. Vernal explained Zuckerberg’s decision to other Facebook employees in
 23 November 2012, noting that he believed the amount of data that Facebook required from
 24 competitors was “crazy”:

25 [A company must share] every piece of content by that user that
 26 can be seen by another user. What Mark is saying is he wants
 27 certain partners (I assume not all) to give us news feeds on behalf of
 28 their users, which is kind of crazy.

29 134. Facebook continued to formalize its plan to require the right to crawl the sites of
 30 its competitors as a condition of access to its Platform. In November 2012, Facebook’s Group

1 Product Manager, Rose Yao explained the scheme:

2 We also reserve the right to crawl a partner website for the user's
 3 data. Partners cannot blacklist or block Facebook from crawling
 4 your site or using the API. If they do, Facebook reserves the right
 5 to block the partner from using our APIs. The theory behind
 6 Action Importers was that we needed to balance the leverage. You
 7 can call our APIs and access our data, as long as we can call your
 8 APIs (if you have them) or crawl your web site (if not) and access
 9 your data. It's one thing to drag your heels, but if we're the ones
 10 doing the work then we force you to make a decision—either you
 11 allow us access to your data, or you block us. If you block us, then
 12 it's really easy/straightforward for us to decide to block you.
 13 What's changed? *When we first started discussing this, we were
 14 talking about doing this only for top partners. I think a lot of folks
 15 interpreted this as just a negotiation tactic—we'd just threaten to
 16 do this if they didn't cooperate. What's changed between then and
 17 now is that this is now very clearly nota negotiation tactic—this is
 18 literally the strategy for the read-side platform.*

19 (emphasis added.)

20 135. Thus, what began as a negotiation strategy to extract social data from rivals
 21 became the foundation of Facebook's Platform strategy. For competitors that posed enough of a
 22 threat to create their own rival network, Facebook required them to hand over the only leverage
 23 they had—the social data they derived from their users' engagement.

24 136. For some rivals that directly competed, no amount of data would justify access to
 25 Facebook's Platform, and for nascent threats that relied on Facebook's platform that did not have
 26 any useful data to extract, Facebook's decision was to simply cut off their access to the Friends
 27 and News Feed APIs, killing their businesses almost immediately.

28 137. Vernal expressed concern about the strategy to Zuckerberg in November 2012,
 29 noting that he was skeptical that competitors such as Pinterest would allow Facebook to take their
 30 social data. If they, as well as others, did, Facebook would become a central exchange for data
 31 collected among competitors. That is, competitors would share the data to Facebook and Facebook
 32 would then share that data back to the competitors that participated in the scheme. ***Facebook
 33 would become a data-pass-through mechanism.***

34 138. In December 2012, despite recognizing that API access, particularly when

1 bundled with Facebook's NEKO advertising platform, was profitable, Facebook decided not to
 2 charge for API access and began full implementation of Zuckerberg's decision.

3 139. Although Facebook had planned to announce its decision not to allow access to
 4 Friends data through its Friends and News Feed APIs in a public blog post, Zuckerberg vetoed
 5 that decision in December 2012. Instead, Zuckerberg decided to enforce the decision selectively
 6 and covertly after deliberately analyzing Facebook's competitors. Some competitors would be
 7 blocked entirely from the APIs, while some select few would be blocked only if they did not
 8 provide their own social data to Facebook.

9 **C. Facebook Targets Its Competitors for Reciprocity or Denial of API
 10 Access**

11 140. Beginning in January 2013, Facebook began an internal audit of all of the
 12 applications that relied on its Platform. It immediately identified competitors to shutdown entirely
 13 from accessing Facebook's APIs or advertising platform. Specifically, Zuckerberg ordered that
 14 WeChat, Kakao, and Line be restricted from using the Friends and News Feed APIs and even from
 advertising on Facebook's NEKO and other platforms.

15 141. Facebook's David Fischer balked at the decision, noting that blocking competitors
 16 even from the advertising platform was irrational and unworkable:

17 I continue to believe we should allow ads from competitors for
 18 several reasons: We should be secure enough in the quality of our
 19 products to enable them to compete effectively in the open
 20 marketplace. It looks weak to be so defensive. This will be a
 21 challenge to enforce. We have many competitors and the list will
 grow in time. How will we judge retailers and e-commerce sites as
 we grow Gifts, since they arguably are competitors too?

22 142. Fischer was right. The decision made no rational economic or business sense. The
 23 sole purpose of refusing to sell social data as part of the Facebook Platform or through advertising
 24 was to shutout competition and allow Facebook to dominate the Social Advertising Market. Aside
 25 from that anticompetitive purpose, the decision to refuse to sell social data or advertisements even
 26 at full price was so facially irrational that Facebook's own employees who may not have been
 27 fully privy to the anticompetitive scheme protested at the irrationality of the decision.

28 143. That same month Facebook's Osofsky pleaded with Vernal to make an

1 announcement that would send a clear signal to developers, but Vernal responded that Zuckerberg
 2 had already rejected that approach. As Vernal explained, telling developers about the decision
 3 means bearing the “very real cost” of “changing the rules,” including the “PR cost” of betraying
 4 developers that Facebook had induced to build for Facebook’s APIs and Platform.

5 144. That same month, Facebook continued to implement Zuckerberg’s decision to
 6 blacklist competitors. He ordered that Facebook competitor Vine be “shut down” from
 7 Facebook’s API and Platform, including from advertising. Facebook had again sacrificed the
 8 profits it would glean from increased engagement and advertising revenue as a result of Vine’s
 9 use of Facebook’s Platform in exchange for the exclusion of Vine from the competitive landscape.

10 145. Indeed, Facebook’s mobile advertising platform was growing rapidly, and
 11 blocking large companies from using it made no economic sense other than to effectuate
 12 Zuckerberg’s scheme to prevent rivals from competing with Facebook. In a January 20, 2013 email,
 13 Facebook’s then-Director of Product Management and Platform Monetization team, Deborah Liu
 14 reported: “Neko grew another 50% this week! Hit a high of \$725k Friday (see charge below). We
 15 are now 5% of total Ads revenue and 21% of mobile ads revenue.”

16 146. Lessin responded to the news: “The neko growth is just freaking awesome.
 17 Completely exceeding my expectations re what is possible re ramping up paid products.”

18 147. Liu was clear, however, that the increased revenues occurred notwithstanding the
 19 blacklisting of formerly large spenders, such as WeChat: “WeChat and other competitive
 20 networks are no longer advertising on Neko based on policy.”

21 148. In February of 2013, Facebook shut down Yahoo’s access to key APIs, resulting
 22 in direct negotiations between Yahoo’s Marissa Mayer and Facebook’s Sheryl Sandberg in order
 23 to restore Yahoo’s access to the Facebook Platform.

24 149. In March 2013, Facebook’s key Platform employees began to voice concern that
 25 the approach taken by Facebook of shutting down access and then coercing “data reciprocity”
 26 was problematic. They instead encouraged making an upfront announcement that the APIs would
 27 be unavailable and then negotiating a deal for access to Facebook’s Platform. In an e-mail that
 28 month from Purdy to other Facebook employees and executives, he wrote:

1 I have been thinking about the challenges around reciprocity and
 2 competitive enforcement (friends.get, etc.) and fact that *it is all post*
 3 *facto*. The way we are structured today, you build an app on FB and
 4 then launch and then we may just shut you down, harming users and
 5 the developer. I wonder if we should move as quickly as possible
 6 to a model in product where all you get from platform is login
 7 (basic info) and sharing without approval. All other APIs are
 8 available in development, but have to be approved before the app
 9 launches to real users (basically all apps using friends.get have to
 have that capability approved). We are roughly on course to
 deliver this as part of unified review, save for the more granular
 approval for things like friends.get? What I love about this too is
 we could make our whitelists so much cleaner by making each
 capability an approval thing. Marie: I think makes your
 “deprecations” much easier. Thoughts?

10 150. Although Facebook moved towards full depreciation of the APIs with the
 11 exception of those with whitelisting agreements, it continued its campaign of quietly shutting
 12 down competitors’ access to the APIs and then asking them to make a reciprocity deal. Indeed,
 13 Facebook soon thereafter shut down three competing Amazon apps, resulting in Amazon
 14 protesting that the decision “will break 3 of our live integrations.”

15 151. That same March in 2013, Facebook used API and Platform access as leverage to
 16 acquire rival Refresh.io. Facebook internally decided that it would threaten Refresh.io with denial
 17 of access to the APIs unless it sold its business to Facebook. That same form of leverage would
 18 be used to acquire other rivals—either they sold to Facebook or they saw their business ejected
 19 from Facebook’s Platform.

20 152. In 2013, Facebook also began using mobile spyware company Onavo to secretly
 21 track application usage on customers’ phones. Onavo, through deceptive terms of service, tracked
 22 app usage in real time, and Facebook used that data to target specific competitors. By April 2013,
 23 Olivan was using Onavo to track Snapchat, Pinterest, WhatsApp, Tumblr, Foursquare, Google,
 24 Path, vine, Kik, Voxer, MessageMe, Viber, GroupMe, Skype, Line, and Tango. One internal
 25 Olivan presentation contained detailed usage data for these applications from August 2012 to
 26 March 2013.

27 153. By July 2013, Onavo data was providing detailed intelligence to Facebook on 30
 28 million Onavo users. Among all of the apps, the data showed the meteoric rise of WhatsApp, a

1 direct competitor to Facebook's own fledgling product, Messenger.

2 154. Armed with detailed intelligence about its competitors—both on and off the
 3 Facebook Platform—Facebook ordered a detailed audit of Facebook applications that relied on
 4 the Friends and News Feed APIs.

5 155. Facebook's Director of Developer Platforms & Programs, Konstantinos
 6 Papamiltiadis, reported back that there were 40,000 apps using the APIs that were to be restricted,
 7 with 7% of them being photo or video sharing apps.

8 156. Facebook then began to categorize these third-party applications into three general
 9 categories: (1) developers that “may cause negative press” if their access to APIs were shut down;
 10 (2) applications that “provide strategic value”; and (3) applications that were “competitive” or
 11 “not useful to FB. Application developers that would experience “a Major Business
 12 Disruption/Kill” as a result of the restriction of API access received a “PR flag.”

13 157. In response to the categorization, Lessin immediately ordered his subordinates to
 14 “shut down access to friends on lifestyle apps . . . because *we are ultimately competitive with all*
 15 *of them.*” (emphasis added).

16 158. As Facebook continued its analysis of the applications that relied on the Friends and
 17 NewsFeed APIs, it became clear that Facebook's plan would result in the deprecation of the
 18 “majority of the API surface”—namely, the APIs that were the most essential parts of the
 19 Facebook Platform.

20 **D. The Decision to Remove Developer Access to the Friends, News
 Feed and Other Crucial APIs Lacked Any Legitimate Justification**

21 159. The engineers tasked with implementing Zuckerberg's decision to restrict access
 22 to the APIs were baffled. The decision made no technical sense whatsoever. Indeed, there was no
 23 justification for it other than to squelch competitors who threatened Facebook's dominant position
 24 and SDBE.

25 160. As Facebook engineer, David Poll, had written to all Platform Engineers earlier in
 26 2011, the decision would mean gutting the Facebook Platform of functionality used—and
 27 needed—by some of the most important mobile apps built on Facebook's Platform:

28 I was thinking about the Platform 3.0 friend list change a bit as I

1 was using my Android phone tonight and realized that two of the
 2 apps that most impact my day-to-day mobile experience will be
 3 completely, irrevocably broken by this change. In both of these
 4 cases, the apps are adding real value to my experience, and in both
 5 of those cases, I have zero expectation that any of my friends will be
 6 using the app. The fundamental problem I'm having with this
 7 change is that my friend list is my information—it's part of who I
 8 am, and for Facebook to shut down this access primarily comes
 9 across to me as FB intruding upon and shutting down my own access
 10 to my own information.

11 161. Poll concluded, "No matter how you slice it, this change is going to have a
 12 significant negative impact on my day-to-day smartphone experience.

13 162. Poll was correct. The change meant breaking applications that added significant
 14 value to Facebook's network and increased valuable user engagement on Facebook's core
 15 product. The decision to deliberately break these applications had only one plausible purpose—to
 16 strengthen the SDBE and to ensure that competitors could not create rival social networks that
 17 could compete with Facebook.

18 163. That proposition was entirely obvious to those responsible for Facebook's
 19 Platform. In an August 2013 e-mail, senior Platform engineer Bryan Klimt wrote to Ilya Sukhar,
 20 Facebook's Head of Developer Products and Senior Engineer working on its APIs, and others
 21 working on Facebook's Platform, stating that the reason for the decision to block access to the
 22 Friends and News Feed APIs was to exclude competitors and that all other reasons were simply
 23 false and pretextual. To begin with, Klimt was clear that the removal of the APIs was "ridiculous"
 24 because they were so essential to the Facebook Platform:

25 I'm trying to write a post about how bad an idea it would be to
 26 remove the API that lets you get a list of user's friends from Facebook
 27 Platform. In order to illustrate my point, I'd like to satirically suggest
 28 removing some API that is so core to the developer experience and
 29 that removing it would be ridiculous on its face. For example,
 30 removing the Windows API method that lets you create a new
 31 window. Or removing the Twilio API method that lets you send a
 32 text message. Both suggestions are utterly insane. The problem is,
 33 for Facebook Platform, removing the method to let you get a list of
 34 friends literally is already that ridiculous. I can't think of an
 35 example more ridiculous to parody it with.

36 164. Klimt then dispelled any notion that the APIs were being removed for any
 37

1 technical or functionality-driven reason:

2 Before we discuss in more detail, I'd like to clear up some
 3 misconceptions about the deprecations. I've heard some rumors
 4 floating around about why we are doing this. But many of them are
 5 clearly ~~pablum~~ designed to make engineers think this decision has
 6 solid technical reasons. It does not.
 7 1/ This API can be abused so we
 8 can remove it. False. That is a non-sequitur. Lots of APIs can be
 9 abused. Our whole product can be abused. That's why we have one
 10 of the best teams in the industry at detecting and stemming abuse.
 11 That team, plus Unified Review, is more than sufficient to deal
 12 with any theoretical abuse coming from this API. Even if this were
 13 true, who wants to be in that classroom where the whole class is
 14 punished for transgressions of a few?

15 165. Klimt also was clear that the APIs were not being removed in favor of new or
 16 different APIs providing the same features:

17 2/ It's okay to remove because we've provided alternatives for
 18 common uses. False. If you think that's true, then I don't think you
 19 realize why developer platforms exist. If we wanted to limit
 20 Facebook to the set of use cases we've already imagined, we could
 21 just do that ourselves, and not even have a Platform. The purpose of a
 22 Platform is to let people build new things on top of it. It's to enable
 23 the whole universe of ideas that anyone in the world could think of.
 24 Developers out there will have all sorts of crazy ideas. We want them
 25 to build those crazy ideas on top of Facebook. Do you know why
 26 Facebook was originally built for the WWW instead of being part
 27 of CompuServe or AOL's proprietary networks? It's because the
 28 web is an open and extensible platform. It lets developers make their
 29 craziest become reality.

166. Klimt then explained that the real reason was to hurt Facebook's competitors and
 17 prevent them from competing with Facebook:

18 So, if neither of those reasons explains why we are doing this,
 19 what's driving it? The only reason I've heard that makes sense is
 20 that we are worried about people "stealing the graph", ***we are doing***
 21 ***this as a protectionist grab to make sure no one else can make a***
 22 ***competing social network by bootstrapping with our social graph.***
 23 Okay, so let's assume for a minute that the social graph does belong
 24 to us, and not to our users. And let's even go so far as to assume
 25 that this is a real problem, although, I'm not convinced it is. I mean,
 26 concerns that other companies will steal our friend graph may just
 27 be paranoia. But for the sake of argument, let's say it's not. Then
 28 what? ***We're removing the core API in our developer platform.***
Out of concerns that someone will steal our social network

product. That sends a clear message to developers: Facebook Platform comes second to Facebook the Social Network Product. This has been a criticism all along with our Platform. When you go read the blog posts critical of our Platform, they all hit on this same point. When our APIs are subjugated to the whims of our other products, they can't be stable. And an unstable platform isn't really a platform at all. So then you are left with 2 big problems. 1/ How do you convince external developers to build on a platform where the most basic core APIs may be removed at any time? I mean, the only big value we bring to the table right now is in distribution and discovery, and that's going to encourage developers to do only the most superficial integration with Facebook. Basically, they're going to do just enough to be able to use Neko ads. 2/ How do you convince internal developers to work on Platform knowing it's only ever going to play second fiddle to the rest of the company? I mean why should any of us work on a product that could be crippled at any time to benefit another team? If I worked on Platform, I would be seriously reconsidering my options if the API gets deprecated.

(emphasis added).

167. Klimt was clear—the decision to remove the APIs lacked any technical or business justification other than to prevent a competitor from creating a competing social network, eroding the SDBE protecting Facebook's business. Any proffered justification by anyone at Facebook to the contrary was entirely pretextual.

168. Moreover, the decision to remove the APIs permanently destroyed the value of Facebook's Platform. If developers could not trust Facebook to maintain the APIs as stable parts of its Platform, they would not risk writing apps for the Platform in the future. The decision meant scuttling Facebook's valuable Platform for the ability to prevent a rival social network from taking hold.

169. Sukhar responded to Klimt, noting that he agreed and that he “talks about this every single meeting.” His pleas to Vernal, Purdy and Zuckerberg to reverse their decision fell on deaf ears. The decision had been made and Klimt and Sukhar would have to implement it.

170. Facebook continued its audit of apps that relied on the APIs. Most of the Apps were important to the Facebook ecosystem. Indeed, Facebook acknowledged they “are not spammy or crap, but apps users like a lot.” Nonetheless, Facebook's Papamiltiadis concluded that,

1 among others, apps like Sunrise, Yahoo, IFTT, Friendcaster, MyLife, Sync.me, YouTube,
 2 Contacts+, and Bitly “overlap with Facebook products” and “could compromise our success in
 3 those areas.”

4 171. Facebook’s careful monitoring of competitive apps continued well into 2013, and
 5 given its heavy reliance on data secretly collected by Onavo, Facebook purchased Onavo on
 6 October 14, 2013. Facebook used that data to determine which apps competed with its social
 7 network and thus posed a threat to the SDBE. It then targeted those companies for withdrawal of
 8 API access and coerced data reciprocity agreements.

9 172. In October 2013, Facebook’s Purdy reported that Facebook was dividing apps into
 10 “three buckets: existing competitors, possible future competitors, developers that we have
 11 alignment with on business model.” Facebook’s Eddie O’Neil believed that the “separation
 12 between those categories doesn’t feel clean” and that the overlap was problematic. As O’Neil
 13 observed, “apps can transition from aligned to competitive and will ultimately make us sad that
 14 we leaked a bunch of data to them when they were aligned.”

15 173. Sukhar objected to the entire exercise, noting that he had been speaking to many
 16 dozens of developers “who will get totally fucked by this and it won’t even be for the right reason.”
 17 Sukhar explained that his “engineers think **this plan is insane** and I’m not going to support an all
 18 hands [meeting] to convince them otherwise.” (emphasis added).

19 174. As Sukhar noted, the decision to withdraw the Friends and News Feed APIs from
 20 the Platform made no technical sense whatsoever, and Sukhar could not bring himself to tell his
 21 engineers—who saw through the ruse—otherwise. It was obvious that Facebook was seeking to
 22 squelch potential competition—namely, by preventing user growth and engagement for
 23 competitive apps. As one Facebook engineer commented about the obvious purpose of the plan to
 24 remove the APIs: “I understand we want to make it hard for a developer to grow a new app.”

25 175. The review of apps continued and specific decisions with respect to certain highly
 26 sensitive competitors were escalated to Mark Zuckerberg. As one internal Facebook e-mail
 27 explained:

28 We maintain a small list of strategic competitors that Mark
 personally reviewed. Apps produced by the companies on the list

1 are subject to a number of restrictions outlined below. Any usage
 2 beyond that specified is not permitted without Mark level signoff.

3 176. In December 2013, Klimt complained to Sukhar about the audit and categorization
 4 process:

5 So we are literally going to group apps into buckets based on how
 6 scared we are of them and give them different APIs? How do we
 7 ever hope to document this? Put a link at the top of the page that
 8 says "Going to be building a messenger app? Click here to filter
 9 out the APIs we won't let you use!"

10 And what if an app adds a feature that moves them from 2 to 1. Shit
 11 just breaks? And messaging app can't use Facebook login? So the
 12 message is, "if you're going to compete with us at all, make sure
 13 you don't integrate with us at all."? I am just dumbfounded.

14 177. As Poll recognized in response to Klimt's complaint, the changes to Facebook's
 15 Platform were "more than complicated, it's sort of unethical." Klimt agreed with the assessment,
 16 noting that the API removal "feels unethical somehow. It just makes me feel like a bad person."

17 **E. Facebook Prepares to Announce Removal of the APIs**

18 178. Zuckerberg decided to announce the API removal under the cover of a major
 19 change to the Facebook Platform, codenamed PS12N, which would be announced at the next
 20 Facebook F8 Developer Conference. Facebook's engineers were accordingly instructed in
 21 September 2013 to bury the changes to the API and announce them quietly along with the changes
 22 that would be announced at the conference.

19 179. In the run-up to its API withdrawal announcement, Facebook continued its audit
 20 of applications on its platform that were using the APIs. During that process Facebook continued
 21 to classify potential competitors, including LinkedIn and AirBnB, as companies that would be
 22 denied access with no whitelist exception.

23 180. Although Facebook knew that the APIs were going to be removed by the next F8
 24 conference, it continued to tell developers to rely on them. As a Facebook Platform evangelist noted
 25 about one particular document frequently shared with developers, "the language in here around
 26 friend permissions is very counter to our upcoming platform simplification efforts" and "feels
 27 against the spirit of where we are headed."

28 181. That was, however, precisely what Facebook wanted—to continue to entice

1 developers to build their software and their businesses on APIs that made them dependent on
 2 Facebook. The use of the APIs meant that competitors could be abruptly shut out of the market,
 3 useful apps could be extorted for valuable social data, and the rest could simply be destroyed.

4 182. By October 2013, Facebook required certain application developers it chose to
 5 whitelist to sign Private Extended API Agreements, which obligated them to purchase large
 6 amounts of advertising or to provide their own valuable social data to Facebook in exchange for
 7 continued access. That month, for example, Facebook whitelisted Royal Bank of Canada's
 8 application in exchange for the purchase of social data through Facebook's NEKO advertising
 9 platform.

10 183. Facebook catalogued and tracked developers on its platform that would likely
 11 complain about the decision, creating negative press. Facebook's internal employees tasked with
 12 crafting a PR message explained the undertaking in a December 2013 e-mail:

13 In prep for Platform Simplification, we're putting together a list of
 14 developers who we think could be noisy and negative in press
 15 about the changes we're making: Primarily we think it will be a list
 16 of the usual suspects from past policy enforcements. We'd love to
 17 pull from your historic knowledge on the topic. Is there anybody
 18 you'd add to the list below? We're going to build plans around how
 we manage and communicate with each of these developers. There
 are also comms plans in the works for working with developers
 who are high ad spenders and friends of Mark/Sheryl."

19 184. Facebook planned to manage its message carefully, as its decision likely would
 20 alienate even those developers who were making large purchases of social data from Facebook
 21 through ads and/or who were friends of Facebook's two most senior executives, Zuckerberg and
 22 Sandberg. Those developers were identified and the message to them was carefully crafted to avoid
 23 a PR disaster. For most application developers, however, the decision would result in the complete
 24 exclusion of their applications from Facebook's ecosystem—which would likely be fatal to their
 25 businesses.

26 185. Facebook targeted potentially "noisy" or "negative" developers individually,
 27 including, but not limited to, the following applications and developers: iLike, Rock You, Zynga,
 28 Path, Flipboard, Slide, Social, Fixer, SocialCam, Viddy, BranchOut, Vince, Voxer, Message Me,

1 Lulu, Anil Dash, SuperCell, Kabam, Washington Post, Guardian, The Wall Street Journal, Jason
 2 Calacanis, Cir.cl, Bang with Friends, Tinder, Social Roulette, App Wonder, Ark, Vintage Camera,
 3 and Girls Around Me.

4 186. Facebook also used call-log data secretly collected by Android users to target
 5 developers and applications to be shut down.

6 187. The entire process led Facebook engineer George Lee to lament:

7 We sold developers a bill of goods around implicit OG [Open
 8 Graph] 2 years ago and have been telling them ever since that one
 9 of the best things they could do is to a/b/ test and optimize the
 10 content and creative. Now that we have successes. . . . We're
 11 talking about taking it away [Developers] have invested
 12 a lot of time to establish that traffic in our system The more I
 think about this, the more concern I have over the pile of asks
 we're [sic] making of our developers this year. PS12Nis going to
 require them to alter how they deal with APIs (and for limited
 value).

13 188. Thus, as Facebook continued to prepare its API withdrawal announcement,
 14 Facebook's own executives recognized that Platform developers had been conned into relying on
 15 Facebook's APIs. Facebook knew full well that it intended to remove the APIs, but it allowed
 16 and encouraged developers to build entire businesses on and around them. As Lee put it, they
 17 were sold a "bill of goods."

18 189. By 2014, it was clear that with the exception of a few apps and developers, most
 19 would be denied access entirely to the Friend and News Feed APIs.

20 190. In January 2014, Zuckerberg debated denying API access to dating apps.
 21 Facebook decided that it would whitelist Tinder and other anointed dating apps and shut down the
 22 rest, clearing the way for the selected apps to dominate the dating market. Zuckerberg reasoned
 23 that although Facebook would ultimately create its own dating app, it would let Tinder and a
 24 select few others to survive until Facebook's competing app was ready:

25 I've been thinking a lot about Tinder and other people
 26 recommendation apps since about 10% of people in many countries
 27 are using a Tinder now. People recommendations seems like
 something that should be right up our alley, but it's currently
 something we're not very good at. Tinder's growth is especially
 28 alarming to me because their product is built completely on

1 Facebook data, and it's much better than anything we've built for
 2 recommendations using the same corpus . . . I think this is a big
 3 and important space and it's something we should have a team
 4 working on— probably to develop people recommendation Hunch
 5 sections for now.

6 191. Zuckerberg became increasingly involved in assessing whether individual apps
 7 would be whitelisted when the APIs were removed. Facebook's senior-most executives
 8 accordingly prepared recommendations for his consideration. In a January 2014 presentation
 9 entitled, "Slides for Mark," for example, Facebook employees summarized the results of the
 10 ongoing app audit. The presentation observed that the changes would make it "impossible to build"
 11 an app without a whitelist agreement with Facebook. The presentation made special
 12 recommendations for apps that purchased large amounts of social data through Facebook's
 13 NEKO platform or whose developers were friends with Zuckerberg or Sandberg. The bulk of
 14 the 41,191 apps that relied on the Friends or News Feed APIs, however, would be shut out and, as
 15 a result, completely destroyed .

16 192. Although the effect on these apps was clear, Facebook continued to evangelize the
 17 APIs to developers. In January 2014, Facebook's George Lee sounded the alarm to Purdy and
 18 Vernal, which fell on willfully deaf ears:

19 [P]artner managers are still selling products that we ask them to sell, so
 20 when it comes to feed integration, we're still telling people to use [Open
 21 Graph]. The last f8 was all about implicit [Open Graph], so while we may
 22 have decided amongst ourselves that this is no longer the future without an
 23 alternative we don't have anything to tell current [developers] (so partners
 24 continue to tell them to use [Open Graph] and they continue to integrate
 25 it).

26 193. The plan to quietly take away the APIs in favor of a new crippled developer
 27 platform was called the "switcharoo plan" by Facebook's engineers. It was clear to all involved
 28 that the announcement of the changes to the platform at the upcoming F8 conference was cover for
 29 the radical changes Facebook planned to make to its platform—namely, the removal of the Friends
 30 and News Feed APIs.

31 194. During March 2014, Facebook's engineers and employees continued to be baffled

1 by theupcoming decision. As one employee noted:

2 It seems a bit odd that we block other developers from doing things
 3 on ourplatform that we’re ok with doing ourselves. Do we consider
 4 ourselves exempted? That seems a little unfair especially when our
 5 stance on some of these policies is that they’re about ensuring trusts
 and a great experience.My mental model on how platform is a level
 playing field could be way offthough.

6 195. The decision made no sense to Facebook’s own employees, particularly because
 7 Facebookitself needed the APIs to make their own competing applications, including Facebook’s
 8 Messenger application. Facebook’s executives ignored all of the concerns raised by their
 9 employees, including theirAPI engineers, and continued to drive towards the announcement of
 10 the removal of the APIs at F8.

11 196. The real reason for the removal of the APIs was kept tightly under wraps. In April
 12 2014, right before the announcement, Vernal warned Sukhar that if any mention was made of
 13 the competitive reasons for the removal of the APIs (as Sukhar wanted), there would be a “high
 14 likelihood of breaking into jail.”

15 **F. The Announcement at F8**

16 197. On April 30, 2014, Facebook announced “The New Facebook Login and Graph
 17 API 2.0”on Facebook’s website. Facebook heralded changes to its new Login system for several
 18 pages. Buried inthe announcement was a quiet statement about the Platform’s most important
 19 APIs—the Friend and NewsFeed APIs: “In addition to the above, we are removing several rarely
 20 used API endpoints; visit our changelog for details.”

21 198. These APIs were not *rarely used* at all. Tens of thousands of third-party apps were
 22 activelyusing and building on the APIs. Internal Facebook engineers likened them to essential APIs
 23 in Microsoft’sWindows and were outraged at the removal. Five of the top ten Facebook Apps
 24 surveyed in December 2012 relied heavily on them. The announcement was entirely false and
 25 was deliberately buried beneath other API announcements to avoid drawing attention to the
 26 competition-crippling effect of the decision.In fact, today, the changelog referred to in the
 27 announcement is no longer accessible on Facebook’s pageeven though years of other changes are.

1 199. When Mark Zuckerberg took the stage at F8 days later for his keynote speech,
 2 there was no mention of the removed APIs. Instead, Zuckerberg emphasized the “stability” of
 3 Facebook’s mobile platform just as Facebook quietly removed some of the most heavily relied-
 4 upon and necessary APIs in Facebook’s Platform.



14 200. At the twenty developer sessions preceding the announcement, not one mention
 15 was made of the API removal or that the upcoming changes would simply break nearly all of the
 16 more than 40,000 third-party apps that relied on the APIs. After April 30, 2015, the APIs were no
 17 longer part of any available version of Facebook’s Platform.

18 201. Facebook thus had successfully destroyed any application that could possibly
 19 create a product that could threaten the SDBE that protected Facebook’s dominant position and
 20 market power. A select few would be required to hand over their most valuable resource—their
 21 social data—to their behemoth competitor in exchange for continued access.

22 **VI. THE WHITELIST AND DATA SHARING AGREEMENTS**

23 202. After the announcement and through the full removal of the APIs in April 2015,
 24 Facebook continued to make a series of agreements that forced certain competitors to hand their
 25 data over to Facebook. For example, Facebook forced certain third-party developers that it
 26 identified as competitive threats with valuable social data to sign Private Extended API
 27 agreements—referred to throughout this Complaint as “Whitelist and Data Sharing Agreements”

1 or simply “the Agreements”—in order to obtain access to the Friends and/or News Feed APIs.

2 203. Facebook’s Whitelist and Data Sharing Agreements, as of January 2015, included
 3 a provision that acknowledged that the APIs they covered are not available to the general public.
 4 An exhibit to each Whitelist and Data Sharing Agreement listed the specific Facebook APIs to
 5 which a particular developer was being granted access.

6 204. These Agreements were only offered in exchange for massive purchases of
 7 Facebook’s social data through mobile advertising and/or through the provision of the
 8 developer’s own social data back to Facebook (so-called “reciprocity”).

9 205. As Facebook executives and engineers understood and acknowledged in internal
 10 communications, this scheme allowed Facebook to serve as a “data pass-through” among
 11 competitors. Competitors with Whitelist and Data Sharing Agreements provided social data to
 12 Facebook, which sold data obtained from one competitor to another whitelisted competitor.

13 206. If a developer refused to participate in the scheme, it was excluded entirely from
 14 Facebook’s Platform because the most important APIs—the Friends and News Feed APIs—
 15 would not be available to it.

16 207. In January 2015, Facebook provided Whitelist and Data Sharing Agreements to the
 17 dating apps Tinder and Hinge, because of the value of the social data those applications produced.

18 208. In February 2015, when Airbiquity (another third-party developer) sought a
 19 Whitelist and Data Sharing Agreement, Facebook lied to them, telling Airbiquity that the specified
 20 APIs “won’t be available to anyone” after April 30, 2015, and that “all similar integrations will
 21 be subject to the same deprecations/restrictions.”

22 209. That same month (February 2015), Facebook secretly signed Whitelist and Data
 23 Sharing agreements with other third-party developers, including Netflix, Nissan, and Lyft.

24 210. In April 2015, Facebook’s manager of strategic partnerships, Ime Archibong,
 25 internally celebrated the fruition of Facebook’s three-year plan to eliminate its competition
 26 through Platform changes: “Three years coming, but the ‘Platform Simplification’ initiative
 27 finally lands this week.”

28 211. Also in April 2015—as Facebook finally cut off all public access to the Friends and

1 News Feed APIs—Facebook continued to receive requests for Whitelist and Data Sharing
 2 Agreements from companies such as Microsoft, Hootsuite, and Walgreens.

3 212. Facebook had already extracted valuable social data from dozens of competitors,
 4 including Foursquare and Pinterest, in the run-up to the announcement and ultimate removal of
 5 the APIs. Without discovery, the precise number and identity of those who entered into Whitelist
 6 and Data Sharing Agreements with Facebook cannot be known for certain, but publicly available
 7 information indicates that dozens of app developers entered into such Agreements with Facebook.

8 213. Absent the Agreements and Facebook’s overall anticompetitive scheme to exclude
 9 third-party developers, other companies could have created their own social data through the
 10 proliferation of their own competing social networks. The engagement on their competing
 11 networks and the social data generated from that engagement would have increased the value of
 12 their networks because of network effects. As the amount of social data generated and monetized
 13 on these competing networks increased, Facebook’s SDBE would erode, potentially driving more
 14 users to new platforms.

15 214. None of that could happen as long as Facebook could coercively demand all of
 16 the valuable social data generated on any competing platform. The Whitelist and Data Sharing
 17 Agreements ensured that competitive threats such as Foursquare could not accumulate enough
 18 social data to create their own feedback loop in—and perhaps come to dominate, through network
 19 effects—any market in which Facebook anticipated competing or actually competed.

20 215. The Agreements also ensured that Facebook’s decision to destroy forty thousand
 21 applications built on the Friends and News Feed APIs would be effective—and remain so. If
 22 Facebook did not control the supply and sale of social data, excluded developers could simply
 23 build their applications on another platform. But by entering into a network of Whitelist and Data
 24 Sharing agreements, Facebook ensured that no such competing platform could arise. The
 25 Agreements strengthened and preserved the SDBE and/or prevented the proliferation of rival
 26 generators of social data and third-party developer platforms.

27 216. In a world where no such Agreements existed, a rival such as Pinterest or
 28 Foursquare would obtain more engaged users, resulting in more social data than those competitors

1 could monetize through their third-party or advertising platforms. The thousands of developers
 2 denied access to Facebook's Platform would therefore build their applications on Foursquare or
 3 Pinterest instead of simply going out of business or changing their products/businesses
 4 dramatically to survive. By forcing those another similarly situated companies to hand over their
 5 social data, Facebook made sure its Platform would be the only viable platform upon which a third-
 6 party social application could be built.

7 217. As explained in the next section, the only remaining threat to Facebook's Social
 8 Advertising dominance was from a completely independent competitor that did not rely on
 9 Facebook's Platform, and thus could not be extorted into handing over its data in exchange for
 10 API access. For such companies, Facebook would pay any price to remove them from the
 11 market—and use their assets to strengthen Facebook's SDBE.

12 218. But first, Facebook had to identify such threats to its market dominance. Enter
 13 Onavo.

14 **VII. THE SURVEILLANCE AND ACQUISITION OF COMPETITIVE
 THREATS**

15 219. To ensure that its scheme to maintain and expand its market power would work,
 16 Facebook had to control an important source of competition: independent social networks and
 17 producers of social data. Although Facebook could simply destroy any competition that relied on
 18 its Platform by denying access to essential APIs, this would do nothing to stop a competitor that
 19 was growing its network of engaged users entirely independent of Facebook.

20 220. To detect such threats before they became too formidable, Facebook sought a way
 21 to covertly surveil millions of mobile users to determine what applications they were using, and
 22 how. Mobile applications were particularly important—and concerning—to Facebook, as desktop
 23 engagement was shrinking while mobile apps rapidly proliferated. By 2012, it was clear to
 24 Zuckerberg and to Facebook that any threat to its dominance would come from a mobile
 25 application. As explained in this section, Facebook used mobile spyware on an unprecedented
 26 scale to surveil, identify, and eventually remove from the market through acquisition competitors
 27 that independently threatened Facebook's dominance and/or the SDBE protecting its monopoly,
 28

1 market power and business.

2 **A. Facebook Relies on Onavo's Surveillance of Facebook's**
 3 **Competitors, and Acquires and Uses Onavo's Assets**

4 221. Onavo was an Israeli mobile web analytics company founded by Roi Tiger and Guy
 5 Rosenin 2010. The company designed spyware designed to surveil users as they used their mobile
 6 devices. To obtain extensive information on a user's usage of mobile applications and of
 7 bandwidth, Onavo cloaked its spyware in virtual private networks ("VPNs"), data compression,
 8 and even in mobile privacy apps.

9 222. Onavo sold the mobile usage data it collected to Facebook, which in turn used the
 10 real- time information it received from Onavo to determine which mobile applications posed a
 11 threat to Facebook's dominance and to the SDBE protecting Facebook from new entrants and
 12 competition. Facebook used Onavo data to: (a) identify and target competitors from which
 13 Facebook could demand Whitelist and Data Sharing Agreements; (b) identify and target
 14 competitors to whom Facebook would completely deny Platform access; and (c) identify and
 15 target competitors that Facebook would remove from the competitive landscape entirely through
 16 acquisition.

17 223. Facebook received Onavo information in real time, which included the two most
 18 important metrics for competing mobile applications—their reach and engagement. Reach
 19 measures the size of an application's user base, and "engagement" measures the extent to which
 20 users actively engage with the application. An application with high reach but low engagement
 21 cannot generate the sort of social data that Facebook needs to feed its advertising platform with
 22 actionable targeting data. Conversely, an application with high engagement but low reach doesn't
 23 generate social data from enough people to attract a broad base of advertisers. The greatest threat
 24 to Facebook's business would come from an application that exhibited strong reach and strong
 25 engagement—and especially one that showed rapid growth in both metrics, indicating the
 26 development of network effects.

27 224. As the potential threat to its market dominance from mobile applications
 28 continued to grow, Facebook sought to obtain exclusive control over Onavo's surveillance data—

1 and over its mobilespyware code and installed base. On October 13, 2013, Facebook acquired
 2 Onavo.

3 225. On its blog, Onavo's CEO Guy Rosen and CTO Roi Tiger, announced that Onavo
 4 would continue as a standalone brand: "When the transaction closes, we plan to continue running
 5 the Onavo mobile utility apps as a standalone brand. As always, we remain committed to the
 6 privacy of people who use our application and that commitment will not change."

7 226. Facebook, however, had other plans. It immediately began integrating Onavo's
 8 applications into both its business operations and its acquisition strategy. Facebook, for example,
 9 began analyzing data secretly collected from Onavo's Protect software, which was a massive
 10 surveillance and data collection scheme disguised as VPN software. Billed as a way to "keep you
 11 and your data safe," Onavo Protect in fact monitored all web and mobile application traffic on a
 12 user's mobile device.

13 227. When an Onavo Protect user opened a mobile app or website, Onavo software
 14 secretly redirected the traffic to Facebook's servers, where the action was logged in a massive
 15 database. Facebook product teams then analyzed the aggregated Onavo data to determine which
 16 apps and features people were using in real time, how frequently they used the apps, and for how
 17 long. If the data in an app was not encrypted, this information was as specific as (for example)
 18 the number of photos the average user likes or posts in a week in that app.

19 228. Based on a 2017 estimate, Onavo's mobile apps were downloaded an estimated
 20 twenty-four million times, and Facebook collected, compiled, and leveraged all of the collected
 21 data. By February 2018, Onavo apps had been downloaded thirty-three million times across both
 22 iOS and Android.

23 229. As the former chief technologist for the Federal Trade Commission remarked to
 24 the press, Onavo was being leveraged against user interests to stifle competitive innovation:

25 Instead of converting data for the purpose of advertising, they're
 26 converting it to competitive intelligence Essentially this
 27 approach takes data generated by consumers and uses it in ways
 28 that directly hurts their interests—for example, to impede
 competitive innovation.

1 230. Since 2011 and through the present, Onavo products have provided Facebook with
 2 real time data about mobile users on a breadth and scale not available through any other service or
 3 app. Using Onavo data, Facebook was able to determine which potential competitors it could
 4 target for its Whitelist and Data Sharing agreements; which competitors it could destroy by
 5 denying access to crucial APIs; and which competitors is needed to remove from the market
 6 through acquisition to preserve its monopoly position and SDBE.

7 231. Moreover, by monitoring potential threats, Facebook ensured that it had no blind
 8 spot—any application that posed a threat to its dominance was dealt with through anticompetitive
 9 and unlawful Whitelist and Data Sharing Agreements, destruction by denial of access to vital APIs
 10 on Facebook’s platform, or by acquisition.

11 232. By acquiring Onavo, Facebook obtained exclusive access to the only real-time and
 12 high-quality source for mobile app user metrics at scale. Because of the acquisition of Onavo,
 13 Facebook strengthened the SDBE by ensuring that any threat to its dominance of the Social
 14 Advertising Market was dealt with at the earliest possible stage. Indeed, through Onavo, Facebook
 15 was able to (and did) track mobile app usage and trends essentially from launch. If a potential
 16 Facebook killer was on the rise, Facebook had a unique tool to identify it before anyone else
 17 could—and Facebook used it.

18 233. In the years after it acquired Onavo, Facebook continued to aggressively leverage
 19 the company’s codebase in deceptively labeled apps that facilitated maximum surveillance and
 20 data collection of mobile users. For example, Facebook placed Onavo spyware in apps whose
 21 stated purposes required privileged access to user’s mobile devices (in some cases, super-user
 22 privileges), allowing Facebook to gather data on virtually every aspect of a user’s mobile device
 23 usage.

24 234. The abuses by Facebook were so flagrant that on August 22, 2018, Apple banned
 25 Facebook’s Onavo app from its App Store. Apple ejected Facebook’s app from its marketplace
 26 because it violated Apple’s rules prohibiting apps from using data in ways far beyond what is
 27 required to run the app and provide advertising. In other words, because Onavo Protect was
 28 leveraging far more data than any VPN could conceivably need, it was clear that the true purpose

1 of the app was to spy on Onavo users, and Apple would not allow it.

2 235. Indeed, the amount of surveillance was jaw-dropping. Facebook's Onavo Protect
 3 app reported on users' activities whether their screens were on or off; whether they used WiFi or
 4 cellular data; and even when the VPN was turned off. There was simply no rational relationship
 5 between the data collected and the purported purpose of the application. Put simply, a VPN that
 6 collected data even when the VPN was off was an obvious subterfuge for blatant spying on user
 7 behavior.

8 236. Undeterred, Facebook repackaged its Onavo spyware as a Facebook Research
 9 VPN app. Facebook sidestepped the App Store by rewarding teenagers and adults when they
 10 downloaded the Research app and gave it root—superuser—access to network traffic on their
 11 mobile devices. Facebook has been leveraging its Onavo code in similar ways since at least 2016,
 12 administering the program under the codename “Project Atlas”—a name suited to its goal of
 13 surveilling app usage on mobile devices in real time.

14 237. When the news broke in January 2019 that Facebook's Research apps were
 15 repackaged Onavo apps designed to spy on users, Facebook immediately withdrew the programs
 16 from the Apple Appstore.

17 238. Apple again concluded that Facebook had tried to violate its policies. Using
 18 Apple's Enterprise Developer Program, which allows the installation of a certificate or policy
 19 that provides root access to an iPhone or iPad, Facebook obtained a level of administrative
 20 privilege designed for a company's internal IT department. Thus, using a system that allowed
 21 organizations to manage their internal mobile devices, Facebook provided its spyware super user
 22 access to regular people's iPhones and iPads. Apple balked at the abuse. An Apple spokesman
 23 stated:

24 We designed our Enterprise Developer Program solely for the
 25 internal distribution of apps within an organization. Facebook has
 26 been using their membership to distribute a data-collecting app to
 27 customers, which is a clear breach of their agreement with Apple.
 Any developer using their enterprise certificates to distribute apps
 to consumers will have their certificates revoked, which is what we
 did in this case to protect our users and their data.

28 239. U.S. Senator Mark Warner immediately called for new legislation to prevent the

1 sort of abuse which Facebook had engaged in. U.S. Senator Richard Blumenthal issued a fierce
 2 statement rebuking Facebook's repackaging of the Onavo spyware app as "research":
 3 "Wiretapping teens is not research, and it should never be permissible."

4 240. In addition to Onavo's Protect app, Facebook has attempted to deploy its
 5 surveillance software as other forms of utility applications that require extensive or privileged
 6 access to mobile devices. For example, Facebook released the Onavo Bolt app, which locked
 7 apps behind a passcode or fingerprint while it covertly surveilled users—and sent Facebook the
 8 results. Facebook also shut that app down the very day that its surveillance functionality was
 9 discovered. The Onavo Bolt app had been installed approximately 10 million times.

10 241. Facebook continues to possess Onavo's code base and is likely, as it has done
 11 before, to repackage its surveillance software into yet another app. Facebook can also easily
 12 incorporate surveillance code into any of its mobile applications that enjoy massive installed
 13 bases and reach, including Instagram and WhatsApp. Without deterrence or divestiture, Facebook
 14 will continue leveraging the surveillance software, infrastructure, and analysis that it acquired as
 15 part of its acquisition of Onavo.

16 **B. Facebook Identifies Instagram as a Threat and Acquires the Company**

17 242. Data from Onavo reported a significant threat on the horizon likely as early as
 18 2011 (and certainly by 2012): a photo-sharing mobile application called Instagram. That app had
 19 its origins when founder Kevin Systrom, then 27, learned to code over nights and weekends.
 20 Systrom developed an app called Burbn, which allowed users to check in, post plans and share
 21 photos. The photo sharing feature immediately became the app's most popular.

22 243. After meeting venture capitalists from Baseline Ventures and Andreessen
 23 Horowitz, Systrom received \$500,000 of funding. Systrom soon after met co-founder Mike
 24 Krieger—then 25 years old—who focused on the user experience of the app.

25 244. Seeing the positive reception to the photo sharing aspect of the Burbn app, Krieger
 26 and Systrom decided to pivot their business to focus on that feature. They studied their rivals in
 27 the category, including an app called Hipstamatic, which included photo-editing features,
 28 including the ability to add filters to photos. Hipstamatic, however, had no social capabilities.

1 245. Seeking to bridge the gap between Hipstamatic photo features and Facebook's
 2 elements, Systrom and Krieger stripped Burbn down to its photo, comment, and like capabilities.
 3 They then renamed the app Instagram, containing the words "instant" and "telegram."

4 246. Systrom and Krieger worked tirelessly to polish the user experience of their new
 5 application, designing Instagram to streamline the process of taking photos on mobile devices
 6 and uploading them to a social platform. The app had a minimalist focus, requiring as few actions
 7 as possible from the user. After eight weeks of fine-tuning, the app entered its beta phase and the
 8 founders prepared to launch it on iOS.

9 247. On October 6, 2010, Instagram launched on iOS. That very day it became the top
 10 free photo-sharing app on Apple's App Store, racking up twenty-five thousand downloads.
 11 Instagram's founders were stunned at the response. As Systrom noted after the launch: "First off,
 12 we have to say that we never expected the overwhelming response that we've seen. We went from
 13 literally a handful of users to the #1 free photography app in a matter of hours."

14 248. By the end of the first week, Instagram had been downloaded 100,000 times, and
 15 by mid-December 2010, its total downloads had reached one million. The timing of the app was
 16 impeccable, as the iPhone 4, with its improved camera, had launched just a few months earlier in
 17 June 2010.

18 249. With Instagram on the rise, investors clamored for a stake. In February 2011,
 19 Instagram raised \$7 million in Series A funding from a variety of investors, including Benchmark
 20 Capital, which valued the company at around \$25 million. In March 2011, Jack Dorsey, the CEO
 21 of Twitter, pursued the idea of acquiring Instagram, and Twitter made an offer of approximately
 22 \$500 million dollars for the company. Systrom declined.

23 250. By March 2012, the app's user base had swelled to 27 million. That April,
 24 Instagram was released on Android phones and was downloaded more than one million times in
 25 less than one day. At the time, the company was also in talks to receive another \$500 million
 26 funding round.

27 251. Internally, Facebook carefully tracked Instagram's meteoric rise, including
 28 through the intelligence it received from Onavo's data collection. Instagram clearly posed a

1 competitive threat to Facebook's dominant position, including in the rapidly expanding market
2 for mobile-based social applications.

3 252. Unlike Instagram's streamlined approach to photo sharing, Facebook's photo-
4 sharing was onerous. As Facebook internally recognized, mobile devices were changing how
5 users uploaded and shared photos and it was causing severe problems for Facebook's business.
6 As an internal Facebook presentation explained:

7 Before phones, people would take their digital cameras out for
8 special events, vacations, etc. Then, they would post a bunch of
9 photos at once—after uploading them to their computer. With
phones, people take and share more photos more often. They share
them individually (rather than waiting to upload a bunch at once).

10 253. This resulted in a large drop in bulk photo uploads on Facebook's core social
11 networking product—a 29% decline from 2012 to 2014. Facebook also observed that text posts
12 were “tanking” 26% because of “migration to phones with cameras.” The data was clear—
13 Facebook had to shut down the looming threat from the new photo-sharing app. If Facebook did
14 nothing, Instagram's user base would imminently eclipse Facebook's at its current growth rate,
15 eroding and perhaps even destroying Facebook's SDBE. An independent app with no ties or
16 reliance on Facebook, Instagram could become not only a competing mobile-based social app,
17 but a social network unto itself that could rival Facebook in the amount of engagement and social
18 data it could produce and monetize.

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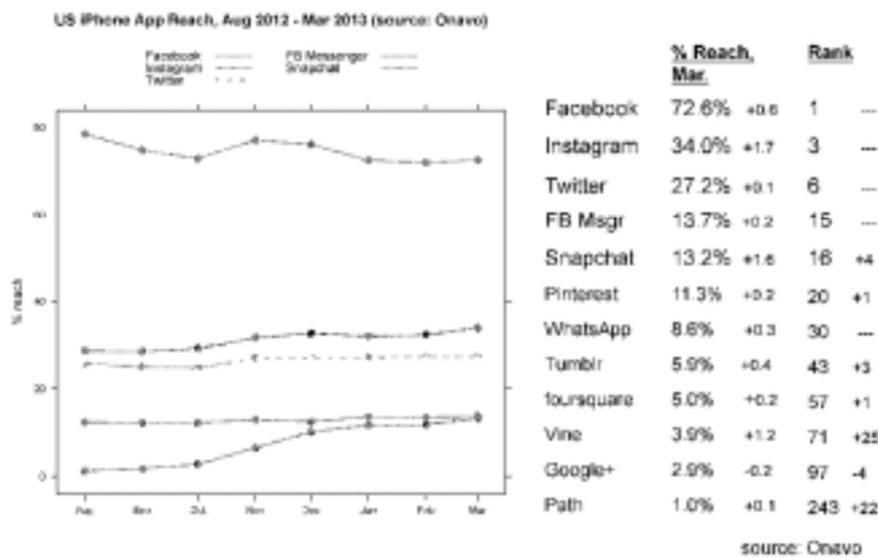
27 ///

28

1 254. After direct talks with Mark Zuckerberg, Facebook made Instagram an offer to
 2 the company for \$1 billion in April 2012, with the express promise that the company would
 3 remain independently managed. Facebook consummated the deal immediately prior to its IPO.

4

5 **US mobile apps (iPhone)**



1 255. Facebook's own Onavo data, which was obtained and published by Buzzfeed,
 2 made clear that Instagram posed an existential threat to Facebook. By February 2013, Instagram
 3 had grown to 34% of the total user reach among all social apps.

4 256. With its Instagram acquisition, Facebook's share of mobile photo sharing app
 5 users ballooned as Facebook added Instagram's 34% user reach to Facebook's own 72% user
 6 reach.

7 257. Although Instagram had not at the time of the merger meaningfully monetized its
 8 user engagement and social data, Facebook quickly did so. By the end of 2013, Facebook had
 9 begun showing ads on Instagram. Since then, Instagram has become an ever-increasing
 10 proportion of Facebook's advertising revenue and a large share of Facebook's user growth.

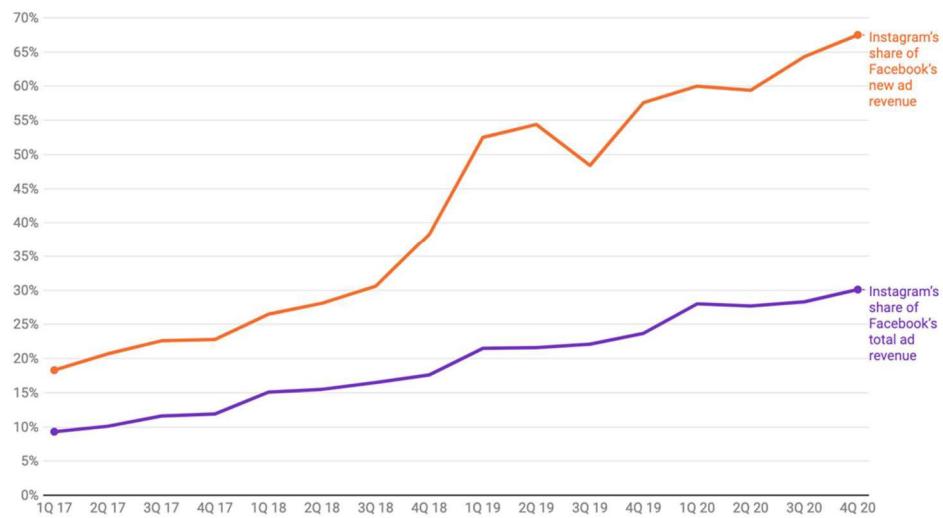
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1 258. In 2017, Instagram generated \$2 billion, or about 15 percent, of Facebook's \$13
 2 billion in ad revenue.

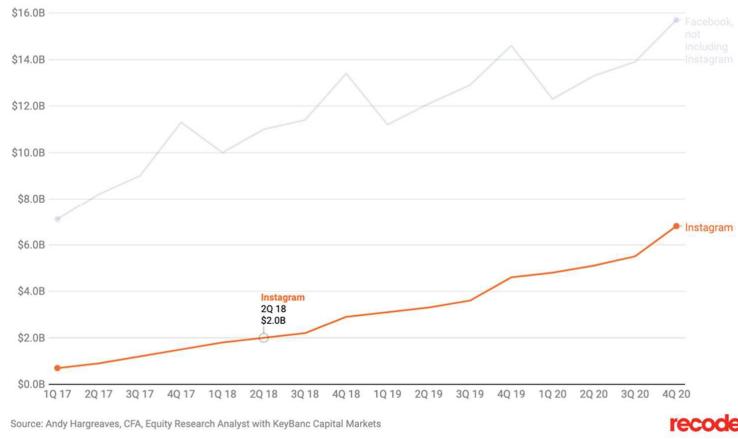
3 Instagram's estimated share of Facebook's ad revenue and growth



12 259. By the end of 2018, Instagram had a billion users and was estimated to generate
 13 \$8 billion to \$9 billion in revenue for Facebook in 2018.

14 260. Instagram also accounts for the bulk of Facebook's new revenue since the
 15 acquisition.

16 Facebook and Instagram's estimated quarterly ad revenue



25 261. Instagram allowed Facebook to grow its social network as Facebook's desktop
 26 and core mobile application began to stagnate. Together, Facebook and Instagram captured and
 27 monetized the social data generated across both apps.

28 262. The Instagram acquisition ensured that Instagram could not become a rival social

1 network that could generate enough social data to erode the SDBE protecting Facebook's business.
 2 It also ensured that Instagram could not build and grow its own developer platform, which would
 3 threaten Facebook's scheme to dominate the Social Advertising Market by denying and/or
 4 leveraging social-data dependent applications' access to essential APIs. The acquisition
 5 accordingly also ensured that Facebook rivals required to enter into Whitelist and Data Sharing
 6 Agreements had no other platform choice—and thus no option but to hand over their social data
 7 to Facebook.

8 263. At the time of its IPO in 2012, Facebook struggled to grow its mobile product, let
 9 alone to meaningfully monetize the social data it collected through advertising. By 2019,
 10 Facebook had achieved an 83% share of the Social Advertising Market by leveraging its
 11 Instagram mobile application and its Facebook mobile and desktop applications. No other
 12 company comes close in market share.

13 264. Instagram was instrumental to Facebook's explosive growth in the Social
 14 Advertising Market. From the fourth quarter of 2010 until the first quarter of 2011, Facebook's
 15 revenue was flat. From 2011's holiday cycle to 2012's opening three months (right before its
 16 IPO), Facebook actually *shrank*. Facebook then experienced a sudden reversal after its acquisition
 17 of Instagram, as mobile revenue began to account for a significant share of revenues, and
 18 Instagram allowed Facebook to grow with the rise of mobile applications.

19 265. Notably, Facebook's acquisition of Instagram also allowed Facebook to exclude
 20 third-party apps that provided photo and video sharing functionality from its Platform. If an
 21 image sharing or video app contained an important feature, Facebook cloned it, thus paving the
 22 way for excluding a competitive rival from its Platform, while simultaneously taking away that
 23 rival's share of users.

24 266. For example, when Snap, the maker of the app SnapChat, rejected Zuckerberg and
 25 Facebook's \$3 billion offer to purchase the company and its product, Facebook flagrantly copied
 26 key features from Snap and built it into its Instagram product. Thus, when the SnapChat's "stories"
 27 feature—which allows a user to post a connected series of images and video—rapidly grew in
 28 popularity, Instagram simply cloned it. By late 2016, Instagram had launched a product that

1 mooted one of Snapchat’s most popular features.

2 267. Facebook’s own clunky mobile app’s clone of the “stories” feature did not have
 3 nearly the same traction with users. It was Instagram that provided Facebook the platform to
 4 compete head-on with a looming threat among social photo- and video-sharing apps. Without
 5 Instagram, Facebook would have faced direct competition. Instead, it leveraged Instagram to
 6 obtain and maintain its dominance among social mobile apps and the lucrative social data they
 7 generated.

8 268. Put simply, the acquisition of Instagram dramatically increased Facebook’s
 9 market share of the Social Advertising Market and strengthened the SDBE protecting Facebook’s
 10 business.

11 **C. Facebook Acquires WhatsApp**

12 269. In February 2009, Jan Koum and Brian Acton left Yahoo and founded a new
 13 company called WhatsApp. Koum had an idea for a mobile application that displayed user
 14 statuses in an address book on a smartphone—indicating, for example, whether a user was on a
 15 call, had low battery, or was at the gym. The pair enlisted the help of a Russian developer, Igor
 16 Solomennikov, to build the app. Koum spent days writing backend code for the app to allow it to
 17 sync with any phone number in the world.

18 270. Although the app—named WhatsApp—was initially unsuccessful, a June 2009
 19 development changed everything. That month, Apple introduced “push notifications” for iPhone,
 20 allowing developers to ping app users even when they weren’t using the app. Koum immediately
 21 updated WhatsApp to ping a user’s entire network of friends when their status changed.

22 271. The feature eventually became a form of instant messaging. Because messages
 23 sent through WhatsApp instantaneously notified other users even if the phone was not running
 24 the app in the foreground, it became ideal for broadcasting messages to connections within a
 25 user’s social network, which was built on their phone’s contact list.

26 272. At the time, WhatsApp’s only significant competition for this sort of instant
 27 messaging was BlackBerry’s BBM—which was exclusive to BlackBerry’s proprietary
 28 hardware platform. WhatsApp, on the other hand, tapped into the vast network of app-enabled

1 consumer smartphones that had emerged, particularly Apple's iPhone.

2 273. WhatsApp continued to innovate, including by introducing a double checkmark
 3 that showed when a message was read by another user. Wanting more from text messaging,
 4 including the limited MMS protocol used by cellular networks, WhatsApp set out to build a
 5 multimedia messenger system to send messages across a social network in real time to mobile
 6 devices.

7 274. Because WhatsApp's messaging used the mobile phone's Internet connection
 8 rather than text messages, the app allowed users to avoid text messaging fees entirely. In some
 9 countries, text messages through cellular providers were metered. WhatsApp's ability to send
 10 messages to any user with a phone using the Internet was its most sought-after feature.

11 275. In December 2009, WhatsApp updated its app for the iPhone to send photos. User
 12 growth spiked, even when WhatsApp charged users for its service. Having created a unique
 13 combination of image and messaging apps as one socially powered app, WhatsApp decided to
 14 stay a paid service and grew while generating revenue.

15 276. By early 2011, WhatsApp was one of the top twenty paid apps in Apple's U.S. App
 16 Store. The company attracted the attention of venture capital firm Sequoia, and WhatsApp agreed
 17 to take \$8 million of additional funding in addition to its original \$250,000 seed funding.

18 277. Two years later, in February 2013, WhatsApp's user base had ballooned to 200
 19 million active users. That month, WhatsApp raised additional funds—another \$50 million from
 20 Sequoia, at a valuation of \$1.5 billion.

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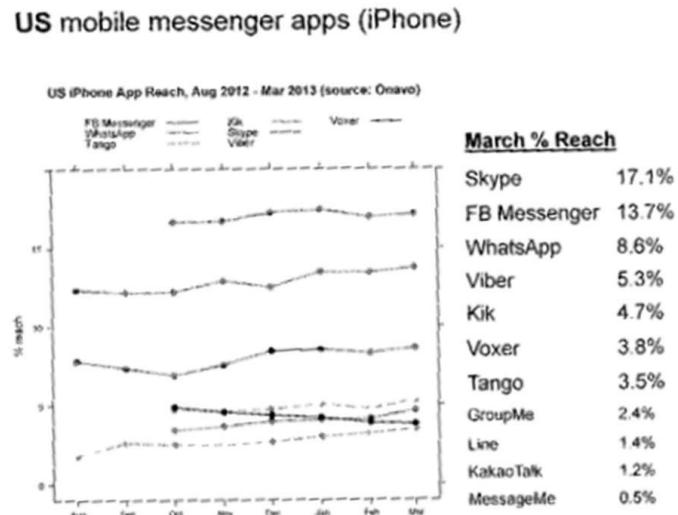
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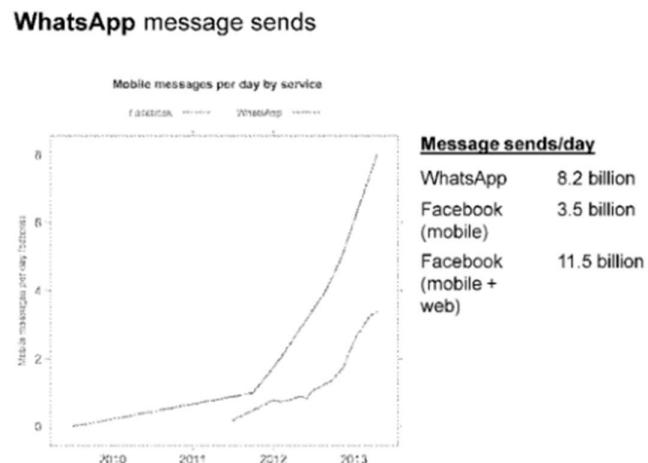
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278. Internally, Facebook had carefully tracked WhatsApp's rapid rise. Engagement data from Facebook's Onavo spyware reported that WhatsApp was rivaling Facebook's own Messenger product, and held third place in terms of user reach among mobile messenger apps for iPhone in the U.S as of April 2013.



279. The broader picture was even more threatening to Facebook. As Buzzfeed recently reported, Onavo had tracked messages sent through WhatsApp and the number dwarfed Facebook's own mobile product by more than twofold.



280. The same Onavo data reported by Buzzfeed showed massive engagement among WhatsApp users, placing it in fifth place behind Facebook's own core product; Facebook's newly acquired Instagram; Twitter; Foursquare; and Snapchat.

1 281. WhatsApp, although lacking Facebook’s market reach, was drawing from the
 2 same pool of limited attention. Given Facebook’s own fledgling Messenger App, WhatsApp
 3 exposed a massive vulnerability in Facebook’s business model. WhatsApp was built on a social
 4 network derived directly from a smartphone user’s contact list. It did not require Facebook’s
 5 graph network for growth and could not therefore be shut down by revoking access to Facebook’s
 6 APIs. Nor could Facebook demand that WhatsApp enter into a Whitelist and Data Sharing
 7 agreement.

8 282. WhatsApp posed a direct threat to Facebook’s business, including the SDBE
 9 protecting its dominance. WhatsApp allowed for statuses, image sharing, and texting—all of the
 10 principal features of Facebook’s core products. By 2013, the size of WhatsApp’s network and the
 11 user engagement in that network made WhatsApp the most direct threat to Facebook’s market
 12 dominance—and because of Onavo, Facebook knew it.

13 283. To ensure that it maintained its SDBE, and thereby its dominance of the Social
 14 Advertising Market, Facebook sought to remove WhatsApp as a competitor. As The Wall Street
 15 Journal reported, Facebook’s Vernal internally commented in 2013: “WhatsApp launching
 16 a competing platform is definitely something I’m super-paranoid about.” Vernal understood that
 17 if WhatsApp created a rival platform, Facebook’s own scheme to exclude rivals by leveraging its
 18 Platform would fail—developers would migrate to the competing platform provided by
 19 WhatsApp.

20 284. Knowing about WhatsApp’s size, its engagement, and its unique potential to erode
 21 the SDBE protecting Facebook market dominance, Facebook moved aggressively to remove this
 22 existential threat from the competitive landscape. In late 2013, Facebook made an initial bid of
 23 \$16 billion in stock for WhatsApp. During negotiations in early 2014, Facebook raised its price to
 24 \$19.6 billion—adding \$3.6 billion to the original price as compensation to WhatsApp employees
 25 for staying on board at Facebook. When all was said and done, Facebook ultimately paid close to
 26 \$22 billion for WhatsApp.

27 285. But for the value of containing and shutting down the growth of WhatsApp’s
 28 competing social network and platform, the transaction made no possible economic sense to

1 Facebook. WhatsApp's revenues were a meager \$10.2 million in 2013. Its six-month revenue
 2 for the first half of 2014 totaled \$15.9 million, and the company had incurred a staggering net
 3 loss of \$232 million in that same period. Facebook had paid twenty billion dollars—thousands of
 4 times WhatsApp's revenues—to acquire a money-losing company that created software
 5 functionality Facebook itself already had as part of its own products, and could easily build from
 6 scratch for a fraction of the cost of the acquisition if it wanted to.

7 286. At the time of the WhatsApp acquisition, Facebook's user reach and user base and
 8 engagement was already massive—and unrivaled by any competing messaging app—but the
 9 addition of WhatsApp's user base further solidified Facebook's dominance in the Social
 10 Advertising Market. More importantly, however, Facebook had removed a serious threat to its
 11 SDBE. If WhatsApp and its nascent social platform were allowed to compete on the merits,
 12 Facebook would not have been able to leverage its Platform into continued dominance of the
 13 Social Advertising Market, including by using API access to shut down competing third-party
 14 apps and to demanding access to other apps' most valuable social data as a condition for their
 15 existence.

16 287. Moreover, because the reach and engagement on WhatsApp generated (and
 17 generates) significant social data that Facebook could (and can) leverage and monetize through
 18 its mobile advertising channel, Facebook's SDBE strengthened as a result of the WhatsApp
 19 acquisition, fortifying Facebook's unrivaled dominance in the Social Advertising Market, and
 20 strengthening Facebook's ability to exclude potential entrants to this market from gaining a
 21 foothold with a rival messaging or photo-sharing app.

22 **VIII. THE RELEVANT MARKET**

23 288. Plaintiff is a consumer and purchaser in the relevant market at issue in this case—the
 24 Social Advertising Market. Plaintiff is a direct purchaser of advertising products from
 25 Facebook and was anticompetitively harmed as a participant in the Social Advertising Market.

26 **A. The Social Advertising Market**

27 289. The Social Advertising Market is a submarket of online advertising, the latter of
 28 which includes banner ads, search-based ads, and advertising on social networks. Social

1 advertising, however, is not fungible or interchangeable with these other forms of online
 2 advertising. Indeed, social advertising allows advertisers to granularly target groups of users for
 3 ads by their attributes, including by the attributes of their networks.

4 290. Thus, because of the extensive ability to target advertisements to users on social
 5 media sites like Facebook, search and banner advertising are not reasonable substitutes.

6 291. Several relevant factors indicate that the Social Advertising Market is a distinct
 7 submarket of online advertising and more general advertising markets:

8 292. ***Industry or public recognition of the submarket as a separate economic entity.***
 9 Social advertising is broadly considered to be distinct from other forms of advertising by market
 10 and industry participants. For example, the advertising company Outbrain describes the
 11 differences between social ads on its blog as follows:

12 Paid social ads are served via algorithms that define what the user
 13 might be interested in, based on past activity in their social accounts,
 14 such as likes, shares, and comments. Unlike search, which is a
 15 focused, goal-oriented activity, browsing on social is more relaxed.
 16 Think cat memes, vacation snaps, and fun quizzes. Nevertheless,
 17 the social platform has accumulated masses of data about every
 18 specific user, which can be leveraged to target specific audiences
 19 with ads that are likely to be of interest to them.

20 293. Outbrain explains that social ads are considered useful for a distinct purpose:

21 Social ads are best for targeting audience segments who may be
 22 interested in your product or services, based on a range of targeting
 23 criteria—location, age group, gender, hobbies, interests. Social
 24 networks, such as Facebook, have advanced targeting capabilities,
 25 which means you can fine-tune your targeting criteria to reach a
 26 very specific, high-quality audience.

27 294. Outbrain explains that search ads are different, as they “are great for targeting
 28 customers when they are already looking for you (i.e., they search your company name or
 29 product), or if they are searching for a specific product, service, or piece of information that you
 30 can provide.” Outbrain also distinguishes social advertising from other forms of online
 31 advertising, like discovery advertising.

32 295. Moreover, providers of business statistics such as statista.com also provide
 33 information as to social media advertising as a distinct submarket of online and general

1 advertising.

2 296. As another example, in March 2015, leading advertising publication AdAge
 3 referred to Facebook's Custom Audience targeting, which is unique to social advertising, as
 4 "potentially different and more special because they have this richer level of data."

5 297. Likewise, industry publication Marketing Land reported in an October 14, 2019
 6 article that media agency Zenith, which is owned by Publicis Media, predicted growth in the
 7 social media advertising segment as distinguished from search and television advertising, with
 8 social media ads coming in third behind television and paid search advertising.

9 298. Even academic articles, including those published in the *Journal of Advertising*,
 10 have analyzed the market for social media advertising as a distinct segment, with well-defined
 11 engagement characteristics.

12 299. ***The product's peculiar characteristics and uses.*** Social advertising has a distinct
 13 purpose from other forms of advertising. Social advertising has different applications than other
 14 forms of online advertising. Namely, social advertising allows granular targeting based on user
 15 attributes, user interests, and group attributes. Moreover, because of the detailed amount of
 16 information that can be collected about users as they engage on social media platforms, social
 17 advertising can seek out other users with similar behavioral characteristics.

18 300. Facebook, for example, describes its own targeting capabilities as follows:
 19 Facebook ads can be targeted to people by location, age, gender,
 20 interests, demographics, behavior and connections. You can also
 21 use more advanced targeting tools like Lookalike Audiences, which
 22 lets you target people similar to the people who already engage
 23 with your business, or you can layer your targeting options to select
 24 a more specific audience.

25 301. Facebook allows advertisers to create Lookalike audiences. Thus, unlike search or
 26 other forms of advertising where the ad is created and placed to reach a preexisting audience,
 27 Facebook is able to algorithmically combine a subset of its users to fit an advertisement. This
 28 capability is unique to social advertising.

302. As Facebook explains on its website:

When you create a Lookalike Audience, you choose a source

audience (a Custom Audience created with information pulled from your pixel, mobile app, or fans of your page). We identify the common qualities of the people in it (for example, demographic information or interests). Then we deliver your ad to an audience of people who are similar to (or “look like”) them.

303. Because of the level of granular data Facebook collects from its users, it can provide targeting flexibility like no other advertising medium. As Facebook explains:

You can choose the size of a Lookalike Audience during the creation process. Smaller audiences more closely match your source audience. Creating a larger audience increases your potential reach, but reduces the level of similarity between the Lookalike Audience and source audience. We generally recommend a source audience with between 1,000 to 50,000 people. Source quality matters too. For example, if a source audience is made up of your best customers rather than all your customers, that could lead to better results.

304. Social advertising is also marked by the ability to algorithmically refine advertising targeting as users interact with the ads. For example, Facebook allows users to place a pixel on their website that is pulled off Facebook's servers when the site is accessed. Facebook is thus able to determine the efficacy of ads run on Facebook once the user transitions to an advertiser's own website. Over time, Facebook's advertising becomes more targeted and more effective in terms of particular advertising goals, such as lead generation or online purchases.

305. Other social networks, such as Twitter, provide similar targeting abilities. Twitter, for example, allows targeting based on location, language, device, age, and gender, but also allows for the targeting of audience types, including algorithmically tailored and custom-created audiences.

306. These targeting features, which are available on social advertising platforms, are not comparably available as part of other forms of online advertising, such as display and banner ads or searchads.

307. ***Unique production facilities.*** Social advertising requires data collected from users on an inherently social application. A user's search history, for example, will not provide enough data to create highly targeted advertising features, such as Facebook's Lookalike Audiences.

1 Likewise, passive advertising, such as banner ads, or even general magazine or publication ads,
 2 provides little granular datathat can then be used to further refine the targeting of advertising.

3 308. Providers of social advertising require specialized means of production because
 4 they must rely on data harvested from engagement among networks of users to facilitate highly
 5 targeted advertising. Platforms capable of delivering social advertising must therefore provide
 6 functionality such as image andvideo sharing, messaging, matchmaking, content sharing, and
 7 other inherently social features in order to obtain the data needed to allow for granular user and
 8 user network targeting.

9 309. Because social advertising allows iterative refinement of target audiences, a
 10 provider of social advertising must employ machine-learning or artificial intelligence algorithms
 11 that are trained on data collected from users as they interact and engage with content and
 12 advertising. As Facebook's head of its Applied Machine Learning Group, Joaquin Quiñonero
 13 Candela, told Wired magazine (emphasis inoriginal):

14 *Facebook today cannot exist without AI. Every time you use*
 15 *Facebook or Instagram or Messenger, you may not realize it, but*
your experiences are being powered by AI.

16 310. Other forms of advertising generally do not require sophisticated machine learning
 17 or artificial intelligence. For years prior to the advent of modern machine learning techniques,
 18 search engines such as Yahoo and Google used far less sophisticated algorithms to match user
 19 searches with suggested websites and, in turn, advertisements. Traditional advertising, such as
 20 magazine or television ads, require no algorithms at all, let alone artificial intelligence.

21 311. Distinct customers. Social advertising customers are distinct from search
 22 advertisers and passive display advertisers. Moreover, social advertising is generally more
 23 effective at targeted advertising rather than reaching a massive number of people.

24 312. Customers advertising on search engines are generally seeking priority among the
 25 search results returned given a particular keyword. Customers advertising on social media
 26 platforms are searching for users that fit a particular, predefined profile or set of characteristics.
 27 Small businesses that do not generally have the budget to bid on coveted search results are
 28 nonetheless able to bid on granularlydefined audiences on a social media platform like Facebook.

1 313. ***Distinct*** prices ***and sensitivity to price changes***. Social advertising prices are
 2 distinct from other forms of advertising. In search-based advertising, certain search keywords are
 3 bid up by many advertisers seeking to have their ads displayed as part of search results. This
 4 means that prices in certain categories, such as legal or home improvement, will be significantly
 5 higher on search-based platforms than on social advertising platforms like Facebook. For
 6 example, legal ads are on average \$1.32 on a cost-per-click basis on Facebook, whereas they are
 7 \$6.75 on a cost-per-click basis on the Google Ads platform. Likewise, consumer services ads are
 8 on average \$3.08 on a cost-per-click basis on Facebook's platform vs. \$6.40 on Google Ads.

9 314. Because bidding on Google Ads and other search-based advertising is zero sum,
 10 meaning only a certain number of ads can be coupled with a particular set of search keywords,
 11 pricing is more sensitive to changes in demand.

12 315. Social advertising, however, allows granular targeting, avoiding much of the zero-
 13 sum nature of other forms of advertising bidding. Moreover, social advertisers like Facebook can
 14 tailor audiences, reducing the likelihood that advertisers will have to compete for the same display
 15 opportunity at any given point in time.

16 316. Other general forms of advertising such as television and print are even more zero-
 17 sum, as there are limited time slots or available pages in a newspaper or magazine. Pricing is thus
 18 more sensitive to demand in these forms of advertising.

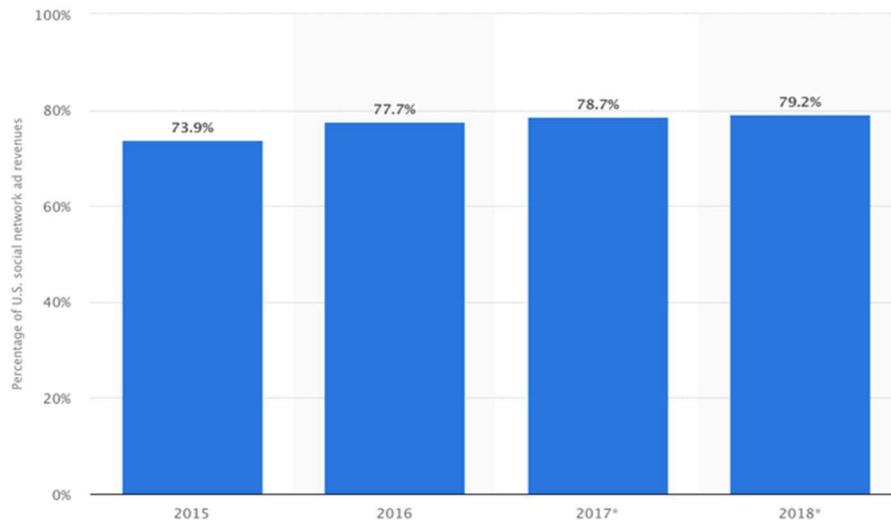
19 317. Social advertising is thus entirely distinct. Because of the ability to target
 20 audiences to advertising, pricing is proportional to the generality of the targeting, not simply to
 21 the general demand for a limited search term, key word, or periodical placement.

22 318. Moreover, Facebook has been able to consistently raise its prices in almost every
 23 year it has sold advertising without facing price pressures from competitors. On a cost per mille
 24 (CPM)—or cost per thousand advertising impressions—basis, Facebook's advertising prices grew
 25 90 percent year over year according to a report at the end of 2019. In 2018, Vox reported that
 26 CPM prices on Facebook had increased 122 percent year over year. In 2017, Facebook's CPMs
 27 increased 171%. Facebook raised prices in prior years as well.

28 319. ***Specialized vendors***. The Social Advertising Market has its own distinct and

1 specialized vendors, namely advertising agencies such as Lyfe, Thrive, Volume Nine, Sociallyin,
 2 and Firebelly Marketing, all of which boast a specialization in social media advertising and
 3 provide specialized social media management products. There are many such specialty
 4 advertising agencies that specialize in creating social media advertising campaigns. Moreover,
 5 specialized social media analytics vendors also exist, such as Socialbakers, which provides
 6 aggregated analytics across social media platforms. There is an entire ecosystem of vendors
 7 specializing in social advertising—an indicator that the Social Advertising Market is its own
 8 distinct submarket of online advertising, requiring its own unique tools and expertise.

9 320. Facebook's revenue share of the Social Advertising Market is approximately 80%.
 10 Its share has been above 70% since 2015.



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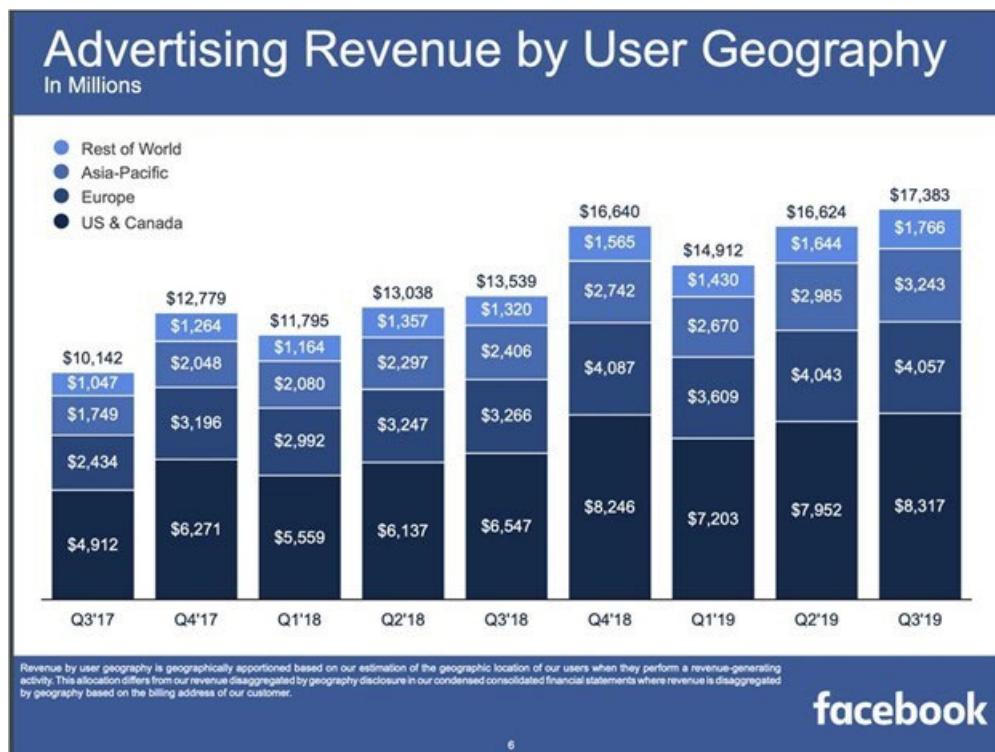
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321. Facebook's advertising revenue has steadily grown both in the United States and globally. Facebook reported advertising revenues totaling \$17.383 billion as of Q3 2019. Approximately \$8.3 billion of that advertising revenue came from the United States.



322. From 2014 to 2016, Facebook's advertising revenues grew from \$2.9 billion to \$6.436 billion. During that period, and even before then, Facebook was one of the few social networks that significantly monetized its network by selling advertising. Other competitors did not come close, and Facebook established unrivaled dominance in the Social Advertising Market and maintains that dominance to this day.

323. Twitter, one of Facebook's only competitors to sell significant social advertising during the same period Facebook generated revenue in the Social Advertising Market, has never exceeded \$800million in advertising revenues. Revenues in Q1 2012 were approximately \$45 million, growing to \$432million in Q4 2014, and standing at \$702 million as of Q3 2019.

324. LinkedIn, another competitor that sells social advertising, generated roughly \$2 billion in overall annual revenue by the end of 2018, with some portion of that coming from

1 advertising.

2 325. Considering the revenue generated by LinkedIn and Twitter, Facebook's
 3 advertising revenue accounts for approximately 86% of the total revenue share across the three
 4 largest firms competing in the Social Advertising Market. Excluding the contributions from
 5 minor competitors that monetize their social networks, the HHI of the Social Advertising Market
 6 is approximately 7,685, well beyond what the DOJ considers a highly concentrated market.

7 **B. Barriers to Entry**

8 326. The Social Advertising Market is protected by the Social Data Barrier to Entry
 9 that prevents Facebook's competitors from entering the market. Without a critical mass of social
 10 data, marketparticipants in the Social Advertising Market cannot generate revenue.

11 327. Moreover, without adequate social data and engagement with the social network,
 12 marketparticipants cannot display content to users that would provide enough value to generate
 13 engagement andadditional social data.

14 328. Likewise, without a critical mass of social data, advertising targeting will not be
 15 possible or will be substantially diminished in effectiveness, thus reducing revenues in the
 16 advertising sales in theSocial Advertising Market.

17 329. A firm's market power in this market therefore depends on obtaining a critical
 18 mass of social data. Because of network effects, users will not use a social network that lacks
 19 enough social datato provide targeted content or to provide valuable connections to other users.
 20 However, once a certain amount of social data is obtained by a market participant, a feedback loop
 21 may form as a result of networkeffects, further increasing the amount of social data generated by
 22 the social network.

23 330. A new entrant must therefore expend significant amounts of investments in
 24 capital, technology and labor to create a network large enough to create the network effects
 25 necessary to compete with dominant firms in the market.

26 331. Because of the large amount of capital and social data required to successfully
 27 enter the Social Advertising Market, the SDBE effectively excludes entry by a new competitor,
 28 even a well-fundedone. Indeed, the SDBE prevented Google from successfully entering the

1 market for social data and the Social Advertising market with its Google+ social networking
 2 product.

3 332. Although Google+ had successfully replicated Facebook's core functionality and
 4 even added additional functionality to its software, its entry failed because it lacked the critical
 5 mass of social data that is required to reverse the network effects protecting Facebook. Without
 6 that critical mass, users will not incur the costs of switching from Facebook's social network to a
 7 new entrant's social network. That is, a new entrant will not be able to provide a valuable network
 8 of engaged users upon entry to justify a Facebook user to change social networks.

9 333. That is precisely what happened to Google. Although it had a massive user base, it
 10 lacked engagement, which meant it did not provide a sufficient amount of social data that could be
 11 used to target content and advertising to users. This, in turn, reduced the value of the entrant social
 12 network and accordingly the attraction of switching from Facebook's social network to Google's.

13 334. The SDBE continues to reinforce Facebook's dominant position. In fact, by
 14 excluding rivals and potentially competing social networks through the anticompetitive scheme
 15 described in this Complaint, Facebook strengthened the SDBE, providing it a larger share of
 16 social data and a stronger monetization channel through social advertising. The additional amount
 17 of social data increases the value of its network, and the revenue from social advertising increases
 18 the cost of entry for a new rival.

19 335. Other barriers to entry in the Social Advertising Market include, but are not limited
 20 to, the high cost of development, data management, talent acquisition and retention, server
 21 infrastructure, development infrastructure, software technology, software libraries, and a brand
 22 and marketing presence sufficient enough to attract an engaged user base.

23 **C. Relevant Geographic Market**

24 336. The relevant geographic market is the United States Social Advertising market.

25 337. For the social data that fuels a social advertising product, social data must be
 26 compatible with the customers purchasing that data. Thus, social data about a foreign market may
 27 be of little use for a U.S.-based advertiser. The data may be collected in a different language, may
 28 involve interests more pertinent to a particular geographic region (e.g., American Football vs.

1 Rugby), and may contain a demographic of users that share a common culture or merely a close
 2 proximity.

3 338. The same is true for the Social Advertising Market. An advertiser seeking to sell
 4 productsdesigned for consumption in the United States may not have any use for a platform's
 5 advertising targetingcapabilities outside of the United States. In the U.S., Facebook enjoys a
 6 higher market share of the SocialAdvertising Market than it does worldwide (which is already very
 7 high, as described in subsection VI.A).In short, Facebook enjoys an even more dominant share of
 8 the U.S. Social Advertising Market than it does globally.

9 339. In the U.S., Facebook's market share of the social data generated by users is even
 10 greaterthan its global market share. Services such as WeChat are geared towards Asian markets,
 11 particularly China, and do not generally compete in the U.S. market with Facebook's Messenger,
 12 Instagram, and coresocial networking product. Thus, Facebook's U.S.-based market share is even
 13 higher than its global market share referenced above in VI.A, which is already a dominant share
 14 of the Social Advertising Market.

15 **IX. HARM TO COMPETITION AND ANTITRUST INJURY**

16 340. Facebook's anticompetitive scheme had the purpose and effect of monopolizing
 17 the Social Advertising market in the United States. Facebook's conduct allowed it to maintain the
 18 monopoly and market power it had obtained by 2010 in the Social Advertising Market, and/or
 19 Facebook intended and attempted to acquire such a monopoly through its anticompetitive
 20 scheme.

21 341. Specifically, Facebook engaged in a series of acts in furtherance of its scheme,
 22 including, but not limited to: (a) the removal of important and necessary APIs from its Facebook
 23 Platform for the intended purpose of destroying competition in the Social Advertising Market;
 24 (b) the targeting of competitors for coercive Whitelist and Data Sharing Agreements on pain of
 25 denial of access to Facebook's Platform and APIs; (c) the use of secret surveillance software to
 26 identify and destroy potentialcompetitive threats; (d) the acquisition of rivals with the purpose
 27 and effect of strengthening the SDBE and increasing Facebook's market share and market power
 28 in the Social Advertising market; and (f) misleading developers about the stability of Facebook's

1 Platform to induce them to become dependent on Facebook's social data.

2 342. Facebook engaged in this conduct while possessing, and/or acting intentionally to
 3 obtain, market power in the Social Advertising Market. Facebook enhanced and/or maintained its
 4 market power and monopoly through this scheme and then used it to exclude rivals and potential
 5 entrants from the Social Advertising Market (both directly and indirectly, by controlling supply
 6 and output of social data, a critical input for social advertising).

7 343. Facebook's anticompetitive scheme also reduced consumer choice by stifling
 8 innovation among nascent and established competitors that relied on Facebook's Platform for
 9 their products and business and by entering into agreements that strengthened the SDBE.

10 344. In the alternative, Facebook's scheme had the purpose and effect of achieving a
 11 dangerous probability of a monopoly in the United States Social Advertising Market.

12 345. Facebook's decision to remove the Friends and News Feed APIs excluded
 13 horizontal and/or direct competitors and rivals from the social data needed to fuel social
 14 advertising. Once a potential threat to Facebook or Facebook's SDBE is eliminated, that entity
 15 cannot (a) monetize social data by selling advertising; (b) accumulate social data sufficient to
 16 create a competing platform; and/or (c) even purchase social data from Facebook at full price.

17 346. The above decision allowed Facebook to monopolize and/or maintain a monopoly
 18 in the Social Advertising Market. Facebook's scheme allowed it to force chosen Platform
 19 developers to buy large amounts of advertising on its struggling mobile platform, NEKO, in
 20 exchange for continued access to some or all Core APIs. At the same time, Facebook's demand
 21 for these developers' social data in exchange for continued access—including from competing
 22 social networks such as Pinterest and Foursquare—ensured that no rival social advertising
 23 platform could emerge, as Facebook would have a superset of its competitors' users' data. By
 24 gaining control over its competitors' social data—a critical resource for social advertising—
 25 Facebook was able to dominate the Social Advertising Market, gaining a monopoly share and
 26 sufficient market power to consistently and dramatically raise prices year after year.

27 347. Facebook sacrificed short-term profits in the Social Advertising Market for the
 28 sole purpose of executing its scheme and excluding competition. It made no rational business

1 sense for Facebook to exclude from its Platform the very entities that, if successful, would likely
 2 be the most ardent consumers of Facebook's monetized social data and social advertising. Yet this
 3 is exactly what Facebook did by leveraging API access in a manner that excluded nearly all
 4 Platform developers. As Facebook's own executives and managers admitted in internal
 5 communications, Facebook did this strictly for competitive dominance. Put simply, Facebook put
 6 the prospect of long-term dominance ahead of short-term profit.

7 348. Facebook knew that once its competitors were foreclosed from the Social
 8 Advertising Market by its anticompetitive scheme, Facebook would be free to charge monopoly
 9 prices for social data and social advertising without facing any competitive price or quality
 10 pressure. In fact, Facebook has reduced the value it provides to users through privacy and feature
 11 innovation throughout and after it executed its anticompetitive scheme without sacrificing any
 12 significant marginal demand—a clear sign of its market power in the Social Advertising Market.
 13 Likewise, Facebook has increased the price of its targeted advertising throughout the period of its
 14 anticompetitive scheme and to the present, also a sign of its market power in Social Advertising
 15 Market.

16 349. Facebook's Whitelist and Data Sharing agreements ensured that Facebook would
 17 control competitive threats to its platform and extract their most valuable asset—their social data.
 18 Facebook, by requiring Whitelist and Data Sharing agreements by competitors, ensured that these
 19 competitors, some of which were competing social networks, could not become alternative
 20 platforms for developers. That meant that when Facebook excluded other developers from the
 21 market, they were completely foreclosed and would have no reasonable alternative.

22 350. After excluding applications that competed with it from obtaining social data or
 23 from the Social Advertising Market, Facebook was left with competition from entirely
 24 independent apps, which did not rely on Facebook's social data, APIs, or advertising. Rather than
 25 compete on the merits with these competitors, Facebook secretly spied on users using the Onavo
 26 data and the Onavo assets that it acquired, identifying potentially competitive threats and then
 27 acquiring the companies that built those threatening products, often at economically irrational
 28 prices.

1 351. Facebook used the Onavo data and Onavo-based spyware it owned or had in its
 2 possession to track Instagram use. When Instagram's engagement and user reach indicated that it
 3 was a potential competitive threat to Facebook, Facebook acquired Instagram and operated it
 4 alongside its products, and presently seeks to complete integration of the product with Facebook's
 5 other major properties.

6 352. Likewise, Facebook secretly tracked mobile users' use of WhatsApp, and when
 7 Facebook determined that WhatsApp threatened to become a platform entirely independent of
 8 Facebook's network and social data, it purchased WhatsApp—at an economically irrational price
 9 of thousands of times the company's revenue.

10 353. By acquiring potential threats independent of its platform, particularly WhatsApp
 11 and Instagram, Facebook ensured that such companies could not be (a) alternative platforms upon
 12 which developers excluded by Facebook's API removal could build their apps; (b) alternative
 13 sources of social data that could be monetized through Social Advertising; or (c) alternative social
 14 networks that would attract users, developers, and advertisers, thereby weakening the SDBE
 15 protecting Facebook's business.

16 354. Facebook's past integration of these acquired assets and its continuing effort to
 17 integrate these acquired assets has continuing anticompetitive effects, and threatens to increase
 18 and/or maintain Facebook's dominance in the Social Advertising Market.

19 355. Facebook also used Onavo and the Onavo assets to maintain a real-time view of
 20 users' mobile application use and mobile traffic. Facebook used that real-time information to
 21 monitor, punish, or acquire any competitive threats. Indeed, Facebook used Onavo surveillance
 22 data to target threats for denial of access to crucial APIs; for Whitelist and Data Sharing
 23 Agreements; or for targeted removal from the market through acquisition.

24 356. The net effect of Facebook's scheme was to, *inter alia*, strengthen and maintain the
 25 SDBE, protect its monopoly in the Social Advertising Market, prevent market entry by a potential
 26 rival, and reduce consumer choice.

27 357. Facebook's scheme also ensured that there would be no competition by a rival
 28 social advertising platform on non-price bases, such as, for example, increased privacy, more

1 features, higher quality features, new features, more valuable social connections, reduced
 2 advertising to users, or new usecases. The scheme also foreclosed new or alternate business
 3 models by competitors or potential competitors, including the business model Facebook itself
 4 forwent and sacrificed for anticompetitive purposes—charging developers and competitors for
 5 API / Platform access or advertising.

6 358. Facebook's anticompetitive scheme has also allowed it to raise prices for social
 7 advertising during and after the execution of the scheme. Facebook continues to be one of the only
 8 sources for targeted social advertising in the United States and in most of the world. As evidence
 9 of its market power in the Social Advertising Market, Facebook has raised prices without
 10 sacrificing any demand.

11 359. Facebook's anticompetitive scheme excludes developers and would-be
 12 competitors from the Social Advertising market; commandeers and restricts output of social data,
 13 a critical resource for social advertising; and strengthens the SDBE protecting Facebook's
 14 business. All of this has resulted in sustained and increasing supracompetitive prices for Facebook
 15 advertisements. Plaintiff (and the persons, entities, and companies in the proposed Classes) bought
 16 Facebook advertisements at supracompetitive prices inflated by Facebook's anticompetitive
 17 scheme.

18 360. Plaintiff therefore was, and is, harmed in its business and property: it was
 19 overcharged for advertising as a result of unlawful, anticompetitive conduct by Facebook.

20 CONCEALMENT AND TOLLING

21 361. Until no earlier than November 6, 2019, Plaintiff did not know, and could not
 22 reasonably have known, the truth about Facebook's anticompetitive conduct, including its
 23 purpose and intent to engage in anticompetitive conduct and the resulting price inflation, as
 24 alleged in this Complaint.

25 362. As set forth below, Facebook, its executives, officers, and senior employees
 26 affirmatively acted to prevent the disclosure of the truth, including through (a) enforcing a strict
 27 code of silence within the organization, (b) preventing disclosure to developers and the public
 28 during and after the scheme, (c) continuing to evangelize the Core APIs knowing that they were

1 slated for removal for competitive reasons, (d) misleading developers and the public about the
 2 reasons for the removal through pretextual explanations, including by falsely stating that the APIs
 3 were being removed to provide users more control over their data or out of concern for user
 4 privacy, and (e) misleading regulators and the public about acquisitions, including of WhatsApp
 5 and Instagram. This conduct individually and taken together ensured that the levee would not
 6 break and that developers and advertisers would not pursue claims for fraud or anticompetitive
 7 conduct.

8 363. In fact, the levee did not break for years. It was not until internal documents came
 9 to light revealing the true, non-pretextual reasons for Facebook's anticompetitive conduct,
 10 including the purported removal of the APIs as well as the lack of legitimate technical or business
 11 purpose for the purported removal; the anticompetitive effect and existence of the whitelisting
 12 agreements made in exchange for advertising purchases or user data; the capture, clone, or kill
 13 strategy implemented by Facebook; and the anticompetitive effects of its acquisitions of
 14 WhatsApp and Instagram, including the intended use of these assets, which was hidden from
 15 regulators and the public to obtain regulatory approval.

16 A. **Facebook Made False Statements About the Availability of the API
 17 Functionality and Omitted from Those Statements that Facebook
 18 Had Internally Decided to Remove the APIs**

19 364. During the period from September 2011 through April 2014, Facebook repeatedly
 20 told developers and the public that the functionality of the Core APIs as well as other functionality
 21 removed in April 2015 was available to them to be used as part of their applications. These false
 22 statements, omissions, and half-truths created a duty to speak fully and truthfully. As explained
 23 below, Facebook never did so—not even after it removed the Core APIs from its Platform.

24 365. During training sessions, hackathons, meetups, and conferences, many of which
 25 were posted on Facebook's public YouTube channel, Facebook's employees and executives
 26 evangelized the Core APIs to developers and other viewers. Facebook did so to ensure that
 27 developers and the public would not learn of the truth—that Facebook had internally begun the
 28 process of auditing apps to be slated for destruction. If the truth were known, developers would

1 have fled the platform, destroying Facebook's ability to anoint winners in various app categories
2 and to destroy their actual and potential competitors by exploiting their reliance on the platform.

3 For example:

4 (a) On June 20, 2012, Cox presented the Ticketmaster app as a case study for what
5 developers could do on Facebook's platform. Specifically, Cox noted that the
6 Ticketmaster app would allow users to see "which night your friends were
7 going to the concert," but the very API this app would have relied on was slated
8 for deprecation with respect to any developer that would not ultimately enter
9 into an agreement with Facebook for data or advertising.

10 (b) On October 20, 2013, Zuckerberg gave a speech that touted photo sharing by
11 developer apps and stated that it was an opportunity for developers to monetize
12 their apps. The APIs that were required for such an app, however, had already
13 been restricted as of the date of his statements. During the same speech,
14 Zuckerberg claimed that developers would have access to user photos for their
15 own apps, but at the time he made the statement, Facebook had already planned
16 to remove that functionality from its platform.

17 (c) On February 28, 2013, in a developer video published on Facebook's public
18 YouTube channel, entitled "Getting started with Facebook SDK for iOS,"
19 Facebook's Product Manager of the Mobile Platform, Eddie O'Neil, taught
20 developers how to build applications that access a user's friends' data by
21 building one with the developers in the audience. He showed how to make a
22 request to "get back photo albums from five friends" and then towards the end
23 shows the finished application stated: "Here are all my friends . . . As I scroll
24 here, you see that we haven't brought all the friend pictures in yet, but as we
25 bring them in we'll stick them in that cache and hold on to them . . . when we
26 come back to display this it's instantaneous," meaning that the app can show all
27 the friends' photos in a single request to make it very easy for developers to
28 use this data in their applications. The presentation, including statements about

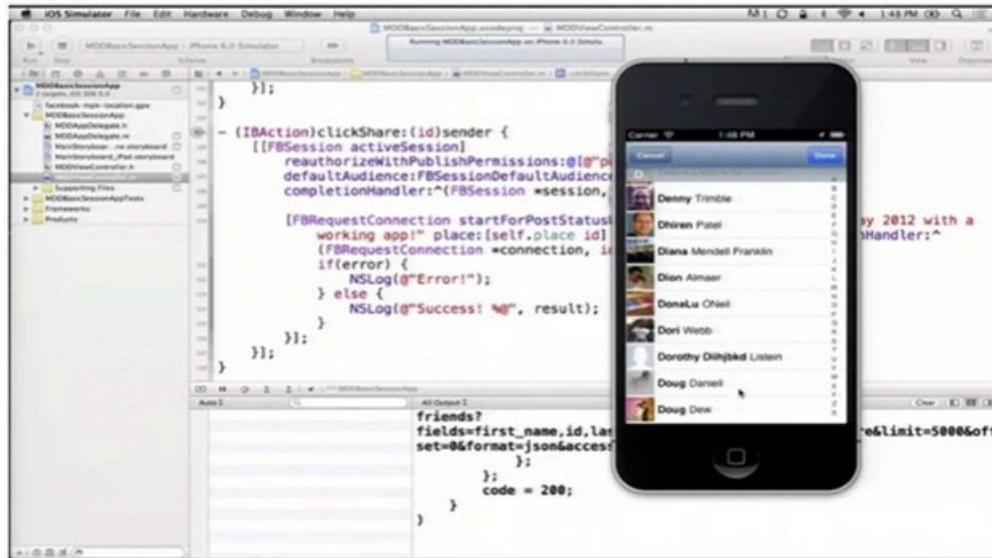
1 the demonstrated functionality, was false and misleading, as Facebook had
2 internally already begun the process of removing the very functionality that was
3 being evangelized.

4 (d) At a developer conference in Moscow, which was posted on Facebook's
5 developer YouTube page on February 28, 2013, and entitled "Introduction to
6 the Facebook Platform," Simon Cross of Facebook demonstrated the use of
7 several of the APIs, including the Friends and News Feed APIs that were slated
8 for removal by Facebook at the time of the demonstration and while the
9 presentation remained on the YouTube developer page. Cross never mentioned
10 Facebook's internal plans to remove the very functionality he advertised to
11 developers. If he had told the truth, developers would have fled the platform
12 and Facebook's anticompetitive scheme would have unraveled.

13 (e) At the same February 28, 2013 conference, another Facebook employee, Tom
14 Elliot, demoed the publishing of information from a mobile app to a user's
15 timeline as well as to the timeline of a user's friends, noting that Facebook's
16 Graph API allowed posts from a mobile app "on the timeline of the user and the
17 news feed of the friend of the user—these are people who have never used your
18 app before." This is precisely the functionality that would require the Friends
19 and News Feed APIs, yet Facebook and its employees never once mentioned
20 that they were internally planning to remove that functionality with respect to
21 certain apps that either (i) did not provide advertising or data to Facebook in
22 exchange for continued use or (ii) were slated for destruction after Facebook's
23 audit of apps on its Platform.

24 (f) At Facebook's Mobile Developer Day in November 2012, Facebook again
25 evangelized the ability to use the Friends and News Feed APIs as part of mobile
26 applications. Indeed, the presentation displayed the ability to traverse a user's
27 friends as part of the test app and to post to a defined audience of friends, as well
28 as to the news feed. The presentation was false and misleading because the

1 functionality being demonstrated was slated for removal with respect to most of
 2 the apps on Facebook's Platform. Developers who viewed presentations like
 3 the one at the Developer Day conference would be allowed to build their entire
 4 business on functionality that Facebook knew it planned to remove.



14 (g) In a June 26, 2013 video posted on Facebook's public YouTube page for
 15 developers, Facebook touted the work done by one of its partners, Fab.com,
 16 which again demonstrated Friends and News Feed API functionality that was
 17 slated for removal. The video features a Fab.com employee stating that using
 18 the Graph API, they were able to "take everything they have in the catalog and
 19 narrowly target to a customer" to "see a product on Facebook and then share with
 20 their friends." Again, Facebook omitted that it was planning to remove the very
 21 APIs that made the featured functionality possible and did so because
 22 revelation of the truth would have prematurely ended its anticompetitive
 23 scheme before it could be completed.

24 (h) Facebook was consistently misleading about the functionality available to
 25 developers through the News Feed and Friends APIs. On June 20, 2013, Simon
 26 Cross, in a training video published on Facebook's YouTube Channel, entitled
 27 "Getting Started with Graph API," presented "[a]n introduction to Facebook's
 28 Graph API which is the primary way to programmatically integrate with

1 Facebook—publishing Open Graph stories, reading data about the current
 2 user—their details, their likes and interests and friends.” The video referenced
 3 Facebook’s posted developer documentation, and notably featured the
 4 following false and misleading statements about the functionality provided by the
 5 Graph APIs, including the Friends and News Feed APIs:

6 Graph API Explorer make it really easy to get started . . .
 7 Placed, Pages, Photos, Events and News Feed stories as
 8 well as Users are all considered objects in the graph. We
 9 can go deeper and deeper into the graph. We can also
 request the picture connection on each returned User object.
 This would allow me to show the profile picture of each of
 my friends and to get all of this data in a single request.

10 366. These statements identified above were false and misleading not only because they
 11 were designed to induce developers to build for functionality that was slated for selective removal,
 12 but because the statements maintained the secrecy needed for the anticompetitive scheme’s
 13 success. Facebook knew that if developers found out the truth, they would flee the Platform and
 14 cease making apps that increased the value of Facebook. Without the proliferation of apps on its
 15 Platform, Facebook could not choose the “winners” among them for continued access while
 16 eliminating any actual or potential competitors when it eventually removed the APIs.

17 367. These false statements from the end of 2011 through the removal of the APIs in
 18 April 2015 created a clear duty to speak fully and truthfully. When Facebook finally announced
 19 and purported to remove the APIs, it breached that duty, preventing developers and the public
 20 from learning the true reasons for the purported removal of the APIs.

21 **B. Facebook and Its Employees Maintained a Code of Silence about the
 22 Scheme in the Face of a Duty to Speak**

23 368. Facebook senior executives, including Mark Zuckerberg, acted internally to
 24 ensure that the purported removal of the APIs, the reasons for the purported removal, and the
 25 overall anticompetitive scheme was kept a secret.

26 369. For example, when Facebook senior executives began plans to announce
 27 Zuckerberg’s decision to remove the APIs and to enforce reciprocity, Zuckerberg vetoed the
 28

1 decision in December 2012.

2 370. When Sukhar raised the need to inform developers of Facebook's internal plans
 3 for the APIs—namely, their removal for competitive reasons—Vernal told him that any mention
 4 of the competitive reasons for the purported removal would mean a “high likelihood of breaking
 5 into jail.” Sukhar did not at any point reveal the truth to developers or the public, even though he
 6 internally observed that he had been speaking to dozens of developers “who will get totally fucked
 7 by this and it won’t even be for the right reason.” In fact, he acquiesced to the scheme, referring to
 8 it as the “switcharoo plan” when speaking to other Facebook engineers.

9 371. Facebook's George Lee raised the fact that Facebook was continuing to mislead
 10 developers about the APIs, even on the eve of the announcement of their purported removal,
 11 stating to Purdy and Vernal that “partner managers are still selling products that we ask them to
 12 sell, so when it comes to feed integration, we’re still telling people to use [Open Graph].” He
 13 noted that Facebook had “decided amongst ourselves that this is no longer the future” but that
 14 developers were being told something different. Vernal, Purdy, and Lee all knew that Facebook
 15 was going to purport to remove the Friends and News Feed APIs, but none of them stopped
 16 Facebook from telling developers or the public otherwise. These systematic and knowingly false
 17 statements to developers and the public created a duty to speak fully and truthfully, but Facebook
 18 never did so.

19 372. All of this conduct instilled in Facebook's employees a need for secrecy. Even
 20 when they raised issues with their superiors, none of them would correct the systematic false
 21 statements Facebook was making to developers and the public contemporaneously with their
 22 internal execution of the scheme to remove the APIs for competitive reasons, including the
 23 internal audit of apps. They failed to correct those statements notwithstanding that their false
 24 statements about the Platform and its available functionality created a duty to speak fully and
 25 truthfully. For example, as described fully above, in internal e-mails to other Facebook executives
 26 and employees, Sukhar recounted conversations with developers during which he did not disclose
 27 the truth about the APIs.

28 ///

1 ///

2 **C. Facebook Lied to Developers and the Public About the Reasons for**
3 **the Purported Removal, Offering False, Misleading, and Pretextual**
4 **Reasons Instead of the Truth**5 373. At the April 30, 2014 Facebook F8 developers conference, Facebook misleadingly
6 downplayed the announcement of its purported removal of the APIs by folding it into its
7 announcement of new Facebook authentication features, including changes to Facebook's Login
8 system. Zuckerberg never mentioned during his keynote or any time during the conference that
9 the most central APIs on the Platform, the Friends and News Feed APIs, were purportedly being
10 removed. Instead, the announcement was buried at the bottom of a public FAQ released during
11 the conference. The FAQ falsely stated that "we are removing several rarely used API endpoints;
12 visit our changelog for details."13 374. This public statement was false because Facebook had internally surveyed the apps
14 relying on the APIs and found that thousands of them relied on those APIs. They were not in any
15 sense "rarely used." The false statement was made to avoid drawing attention to Facebook's
16 radical decision to announce the purported removal of the Friends and News Feed APIs. By
17 making a public false statement about the reasons for the purported removal of the APIs, Facebook
18 assumed a duty to speak fully and truthfully on the subject. It did not do so.19 375. Facebook's public announcement of the purported removal of the Friends and
20 News Feed APIs was deliberately designed to mislead, as it was announced as part of a broader
21 Facebook Login announcement that was supposedly intended to increase user control over data.
22 Indeed, in a public blog post made on the day of the announcement, Facebook's Jeffrey Spehar
23 stated that the changes were made because "people want more control over sharing their personal
24 information" and because "[w]e've heard from people that they're often surprised when a friend
25 shared their information with an app."26 376. Facebook never mentioned that it had internally audited apps to determine whether
27 they were competitive and that senior executives had internally stated that the decision was
28 being driven by competitive reasons, not legitimate business or technical reasons. Indeed,

1 Facebook never mentioned that its own engineers thought the removal of the Friends and News
 2 Feed API was beyond parody and “insane.” The statements about user feedback as the reason for
 3 the decision were pretextual and misleading.

4 377. Between the announcement and the removal of the APIs in April 2015, Facebook
 5 continued to make false and misleading statements and omissions to developers and the public
 6 about the purported removal of the APIs, including about the reasons for the purported removal.

7 378. For example, Facebook told developers and others who inquired that the APIs were
 8 “going away.” Indeed, Konstantinos Papamiltiadis told developer Airbiquity on March 30, 2015,
 9 precisely this: “there are certain things that are going away on 4.30 that we can’t provide
 10 extensions for,” naming the Friends and News Feed APIs explicitly in an e-mail to Airbiquity’s
 11 product manager. At no time did Papamiltiadis or anyone else at Facebook tell the full truth—
 12 that it was secretly making deals with countless developers it had hand-selected for continued use
 13 in exchange for their social data and other compensation.

14 379. On March 30, 2015, Papamiltiadis also told Microsoft the same thing: that the
 15 APIs were going away after April 30, 2015. Again, he never mentioned that in fact Facebook had
 16 made secret deals with certain developers.

17 380. These statements indicate that Facebook’s statements were broad and systematic,
 18 designed to mislead developers and the public into thinking that Facebook had evenhandedly
 19 applied its policy to all developers alike. If the truth were known, developers (and other interested
 20 parties, including members of the press) would have not only complained, but pursued the true
 21 reasons for Facebook’s purported withdrawal, which is why Facebook was careful to make false
 22 statements to developers and other interested parties whom Facebook had not selected for
 23 continued use.

24 381. Even in a blog post from April 30, 2015, the date the APIs were purportedly
 25 removed, Facebook claimed that “Facebook is migrating all apps to v2.0 of the Graph API with
 26 the goal of giving people more control over the information they share with apps.” That was not,
 27 however, the goal of the purported API withdrawal. Facebook had internally made the decision
 28 for competitive reasons and had no legitimate technical or business justification for the decision.

1 Indeed, documents during the several years Facebook and its senior executives planned and
 2 executed the scheme reflect that the APIs were being purportedly withdrawn for competitive
 3 reasons, not for increasing user control over shared information.

4 382. Facebook continued to mislead developers and the public by offering pretextual
 5 reasons for the purported withdrawal of the APIs. Simon Cross frequented developer message
 6 boards, including the widely-read public message board Stack Overflow, and referred developers
 7 and others asking questions about the APIs to Facebook's public documentation and FAQ. The
 8 FAQ stated:

9 Why are you deprecating the permissions to get information about
 10 people's friends?

11 To put people first. This update was in response to feedback from
 12 people who were uncomfortable knowing that a friend could share
 13 their information with an app. With Graph API v.2.0, we wanted
 14 to make sure the people had more control over their information.

15 383. The reasons offered by the public FAQ were false and misleading and omitted
 16 material information. Namely, the FAQ's statement that the purported removal of the APIs was
 17 in response to user feedback was false, and mere pretext designed to mislead developers and the
 18 public as to the real reasons for the purported withdrawal of the APIs. In fact, Facebook had made
 19 the decision approximately three years earlier, as part of Zuckerberg's mandate that a policy of
 20 reciprocity be enforced as to developers and that competitive apps be prevented from using
 21 Facebook's APIs. Indeed, Facebook had used information gleaned from spying on users to
 22 measure their engagement with apps, and had performed an internal audit to determine which
 23 apps were competitive or potentially competitive with Facebook so that they could be marked for
 24 destruction. Facebook's internal executives, including Sukhar, lamented that the purported
 25 removal of the APIs was not based on any legitimate technical reason, and Facebook's own
 26 engineers opposed the decision. None of these executives and employees contemporaneously
 27 cited user feedback as even a purported reason for the removal of the APIs.

28 384. Moreover, by speaking partially, falsely, and misleadingly to the public about the
 29 reasons for the purported API withdrawal, Facebook was under a duty to speak fully and truthfully

1 on the subject. It did not do so. Instead, it omitted (a) that the plan to purportedly deprecate the
 2 APIs had been made years prior to the announcement by senior executives, (b) that the reasons for
 3 the purported removal were competitive, not because of user feedback, and (c) that Facebook had
 4 hand selected certain apps for continued use of the APIs. Indeed, Facebook not only omitted that
 5 it was broadly entering into extended API agreements, it made false and misleading statements to
 6 the contrary in its public FAQ, including that “[w]e’ve removed access to friends data in v.2.0”
 7 without any mention of the extended API agreements it was entering with certain app developers.

8 385. The announcement, FAQ, documentation, and posts to developer message boards
 9 misled developers and the public. They accepted the pretextual reasons for the purported API
 10 removal after reading or otherwise consuming Facebook’s communications (including
 11 documentation, message board answers, and videos) posted after the announcement. If they had
 12 known the truth, they would have inquired further into the real reasons for the withdrawal (and
 13 so would the press), but Facebook’s false statements successfully prevented any further inquiry.

14 386. Facebook was careful even when it referenced the purported April 2015 withdrawal
 15 of the Friends and News Feed APIs to continue to offer a false, misleading, and pretextual
 16 rationale for the decision. Indeed, when Facebook announced additional Platform changes on
 17 March 26, 2018, senior executive Ime Archibong referenced the purported API withdrawal and
 18 an investigation into apps that had access to a large amount of information before the purported
 19 withdrawal as part of a broader initiative to prevent “misuse” of user data and to implement
 20 “additional measures to protect data” and give “people more control of their information.” That
 21 was not, however, the real reason for the purported withdrawal of the APIs in April 2015, and
 22 Facebook again failed to mention the real reasons for doing so despite undertaking a duty to speak
 23 fully and truthfully, including when it again spoke publicly on the subject in March 2018.

24 387. Even after certain internal Facebook documents became public after the UK
 25 Parliament used its legal powers to seize them on November 24, 2018, Facebook continued to
 26 make false and misleading statements to conceal from developers, the public, and the press the
 27 real reasons for the purported API withdrawal.

28 388. In a public blog post by the company posted on December 5, 2018, Facebook stated

1 falsely and misleadingly that extended API agreements to access the purportedly withdrawn APIs
 2 were granted to developers in the “short term” and “only used to prevent people from losing access
 3 to specific functions as developers updated their apps.” The blog post also stated that the changes
 4 to the APIs were made to prevent the improper access to user data that occurred as part of the
 5 Cambridge Analytica scandal. That was not, however, the reason Facebook purported to remove
 6 the APIs. In fact, Facebook continued to allow broad access to user data for hand-selected apps
 7 that entered into agreements with Facebook to provide their social data back to Facebook or
 8 provide other compensation, such as large advertising purchases.

9 389. On November 6, 2019, NBC News posted the full trove of documents seized by
 10 the UK Parliament on its website. For the first time, Facebook’s statements to developers and the
 11 public were revealed to have been false, misleading, or having omitted material information. This
 12 was the first time any developer or advertiser—or anyone in the public—could have learned the
 13 real reason for the purported withdrawal of the APIs: anticompetitive reasons. It was also the first
 14 time developers, advertisers, and the public could learn (1) that Facebook internally viewed the
 15 purported withdrawal as lacking any legitimate business or technical justification, and (2) that
 16 the scheme had broad impact on competition.

17 **D. Facebook Misled Regulators and the Public About Its Integration of**
 18 **Instagram and WhatsApp with Its Facebook Product**

19 390. At the beginning of this year, Facebook scrambled to integrate the backends of its
 20 Facebook products with its acquired products, WhatsApp and Instagram. Until that integration,
 21 Facebook had largely maintained the separateness of the products, but in response to threats of
 22 divestiture from antitrust regulators, Facebook began an aggressive effort to integrate the
 23 backends—the brains of each product—reneging on promises to regulators to keep the products
 24 separate and to frustrate any divestiture ordered.

25 391. When it acquired WhatsApp, Facebook publicly stated that it would operate
 26 WhatsApp independently from its other Facebook properties, but that turned out not to be the
 27 case. Indeed, the European Union found Facebook lied to regulators about its integration plans
 28

1 for WhatsApp and fined Facebook € 110 million. The EC regulator explained the reasons for its
 2 fine in a press release, dated May 17, 2017:

3 The European Commission has fined Facebook €110 million for
 4 providing incorrect or misleading information during the
 5 Commission's 2014 investigation under the EU Merger Regulation
 6 of Facebook's acquisition of WhatsApp . . .

7 When Facebook notified the acquisition of WhatsApp in 2014, it
 8 informed the Commission that it would be unable to establish
 9 reliable automated matching between Facebook's users' accounts
 10 and WhatsApp users' accounts. It stated this both in the
 11 notification form and in a reply to a request for information from
 12 the Commission. However, in August 2016, WhatsApp announced
 13 updates to its terms of service and privacy policy, including the
 14 possibility of linking WhatsApp users' phone numbers with
 15 Facebook users' identities.

16 On 20 December 2016, the Commission addressed a Statement of
 17 Objections to Facebook detailing its concerns.

18 The commission has found that, contrary to Facebook's statements
 19 in the 2014 merger review process, the technical possibility of
 20 automatically matching Facebook and WhatsApp users' identities
 21 already existed in 2014, and that Facebook staff were aware of such
 22 a possibility.

23 392. Facebook had lied to regulators. It was always capable of integrating its
 24 advertising targeting systems and in fact had done so. After the acquisition, WhatsApp's founder
 25 Brian Acton quit in PROTEST IN March 2018, stating on Twitter: "it is time. #deletefacebook."



29 393. Consistent with the EC's finding, Acton believed Facebook misled European
 30 Union regulators about its plans to comingle WhatsApp and Facebook data for use in its ad
 31 targeting system. And, despite Zuckerberg's promise that he would not try to monetize WhatsApp
 32 for five years, Facebook almost immediately began exploring the monetization of WhatsApp
 33 without its founders' consent. Acton left behind \$850 million in stock when he quit in protest.

1 394. WhatsApp's other co-founder, Jan Koum, left in April of 2018. Instagram's
 2 founders Kevin Systrom and Mike Krieger followed suit shortly after, resigning from Facebook in
 3 the Fall of 2018.

4 395. With the founders of its two acquired competitors—Instagram and WhatsApp—
 5 gone, by late 2018 Facebook had unfettered internal license to integrate two of the most powerful
 6 rival social networks with Facebook's core business.

7 396. Facebook, however, knew it was vulnerable to divestiture of the acquired assets if
 8 it continued to operate them independently, and the integration of its assets would give it
 9 unprecedented control over user social data globally.

10 397. Zuckerberg and Facebook immediately devised a plan to integrate backends of the
 11 WhatsApp, Instagram and Facebook products. On March 6, 2019, Zuckerberg announced a plan
 12 to integrate the apps on his blog, pretextually cloaking the maneuver as a privacy-related decision
 13 to frustrate regulators and hide the anticompetitive effects of his integration of the acquired
 14 products. Facebook's announced plan would implement a unitary form of end-to-end encryption
 15 across its messaging and photo sharing apps, and would integrate the acquired assets (WhatsApp,
 16 Instagram, and their respective social data) to make them interoperable with—and inextricable
 17 from—Facebook's core product.

18 398. Although Facebook had prior to the backend integration created interoperability
 19 across its applications of its tracking and surveillance infrastructure, the full integration of the so-
 20 called backend provides Facebook with surveillance, advertising targeting, and market power
 21 incomparable from any other social network (and likely any other private entity) on earth. The
 22 integration would ensure that Instagram and WhatsApp networks can also never become viable
 23 platform alternatives to Facebook's Platform. Indeed, once integrated, Instagram and WhatsApp
 24 would not be alternatives but part and parcel of the very Facebook Graph API and Platform the
 25 company has anticompetitively leveraged dominance in the Social Advertising market to the
 26 detriment of thousands of advertisers, including Plaintiff and Class Members herein.

27 399. The back-end integration is a game changer—and directly reneges on Facebook's
 28 statements to regulators about its ability to merge the apps together and to consolidate market

1 power. The integration means that 2.6 billion users across Facebook, WhatsApp and Instagram
 2 would be interoperably reachable across platforms for the first time, creating a massive and
 3 unprecedented concentration of market power in the Social Advertising market.

4 **CLASS ACTION ALLEGATIONS**

5 400. The Classes' claims all derive directly from a course of conduct by Facebook.
 6 Facebook has engaged in uniform and standardized conduct toward the class. Facebook did not
 7 materially differentiate in its actions or inactions toward members of the class. The objective facts
 8 on these subjects are the same for all class members. Within each Claim for Relief asserted by the
 9 class, the same legal standards govern. Accordingly, Plaintiff brings this lawsuit as a class action
 10 on its own behalf and on behalf of all other persons similarly situated as members of the proposed
 11 class pursuant to Federal Rules of Civil Procedure 23(a) and (b)(3) and/or (b)(2) and/or (c)(4).
 12 This action satisfies the numerosity, commonality, typicality, adequacy, predominance, and
 13 superiority requirements of those provisions.

14 **Nationwide Advertiser Class**

15 401. Between April 4, 2018, and the present, Facebook advertisers, including Plaintiff,
 16 have been governed by materially common terms of service, which applied specifically to
 17 "commercial" Facebook accounts during this time period.

18 402. Plaintiff brings this action and seek to certify and maintain it as a class action under
 19 Rules 23(a); (b)(2); and/or (b)(3); and/or (c)(4) of the Federal Rules of Civil Procedure on behalf
 20 of itself and a Post-2018 Nationwide Advertiser Class defined as follows:

21 All persons, entities, and/or corporations in the United States who
 22 purchased advertising from Facebook between April 4, 2018, and
 23 the present, and were thereby injured by anticompetitive price
 24 inflation in the Social Advertising market (the "Post-2018 Class
 25 Period").

26 403. Excluded from the Nationwide Advertiser Class is Facebook, its employees,
 27 officers, directors, legal representatives, heirs, successors, and wholly or partly owned
 28 subsidiaries or affiliates; and the judicial officers and their immediate family members and
 associated court staff assigned to this case.

Numerosity and Ascertainability

404. The class in this action satisfies the requirements of Fed. R. Civ. P. 23(a)(1). Thousands of persons, entities, and/or companies nationwide purchased advertising from Facebook during the Class Period. Individual joinder of all Class members is impracticable.

405. The Class is ascertainable because its members can be readily identified using Facebook accounts, Facebook Ads registrations, and other records and information kept by Facebook or third parties in the usual course of business and within their control. Plaintiff anticipates providing appropriate notice to the certified Class, in compliance with Fed. R. Civ. P. 23(c)(1)(2)(A) and/or (B), to be approved by the Court after class certification, or pursuant to court order under Fed. R. Civ. P.23(d).

Predominance of Common Issues

406. This action satisfies the requirements of Fed. R. Civ. P. 23(a)(2) and 23(b)(3) because questions of law and fact that have common answers are the same for each Class member and predominate over questions affecting only individual Class members.

407. Common issues include, without limitation, the following questions of law and fact:

- a. Whether Defendant monopolized the Social Advertising Market.
- b. Whether Defendant, its employees or affiliates, intended to monopolize the Social Advertising Market.
- c. Whether Defendant attempted to monopolize the Social Advertising Market.
- d. Whether Defendant possessed monopoly or market power in the Social Advertising Market.
- e. Whether user data and data obtained by third parties created a Social Data Barrier to Entry that protected Facebook's market position and/or monopoly, reduced competition or entry in the Social Advertising Market, and/or increased prices for products in that market, including, but not limited to, advertising sold to members of the proposed Classes.
- f. Whether Defendant's decision to withdraw the Friend and Feed Graph APIs

lacked any justification and/or whether the procompetitive effects of the decision to do so, if any, was outweighed by the anticompetitive effects.

- g. Whether Defendant sacrificed short-term profits to monopolize, or attempt to monopolize, the Social Advertising Market.
- h. Whether the procompetitive effects of the decision to withdraw the Friend and Feed Graph APIs, if any at all existed, could have been accomplished by less restrictive means.
- i. Whether Defendant's agreements with whitelisted developers violated Section 2 of the Sherman Act, including whether the agreements restrained trade or strengthened the Social Data Barrier to Entry.
- j. Whether Defendant's purchase of WhatsApp violated Section 2 of the Sherman Act.
- k. Whether Defendant's conduct harmed competition in the Social Advertising Market.
- l. Whether Defendant's conduct caused price increases or the reduction of consumer or developer choice in the Social Advertising Market.
- m. Whether Defendant's unlawful conduct was a substantial contributing factor in the injury to members of the Class.

Typicality

408. This action satisfies the requirements of Fed. R. Civ. P. 23(a)(3) because the Class and Plaintiff's claims are typical of the claims of other Class members and arise from the same course of conduct by Defendant. The relief Plaintiff seeks is typical of the relief sought for the absent Class members.

Adequate Representation

409. Plaintiff will fairly and adequately represent and protect the interests of the Class. Plaintiff has retained counsel with substantial experience in prosecuting antitrust and consumer class actions, including actions involving defective products.

410. Plaintiff and its counsel are committed to vigorously prosecuting this action on

1 behalf of the Class and have the financial resources to do so. Neither Plaintiff nor its counsel have
 2 interests adverse to those of the Class.

3 **Superiority**

4 411. This action satisfies the requirements of Fed. R. Civ. P. 23(b)(2) because
 5 Defendant has acted and refused to act on grounds generally applicable to the Classes, thereby
 6 making appropriate final injunctive and/or corresponding declaratory relief with respect to the
 7 Classes as a whole.

8 412. This action satisfies the requirements of Fed. R. Civ. P. 23(b)(3) because a class
 9 action is superior to other available methods for the fair and efficient adjudication of this
 10 controversy. Common questions of law and fact regarding Defendant's conduct and responsibility
 11 predominate over any question affecting only individual Class members.

12 413. Because the damages suffered by each individual Class member may be relatively
 13 smaller than the costs of litigation, the expense and burden of individual litigation would make it
 14 very difficult or impossible for individual Class members to redress the wrongs done to each of
 15 them individually, such that most or all Class members would have no rational economic interest
 16 in individually controlling the prosecution of specific actions, and the burden imposed on the
 17 judicial system by individual litigation by even a small fraction of the Class would be enormous,
 18 making class adjudication the superior alternative under Fed. R. Civ. P. 23(b)(3)(A) for each of
 19 the proposed Classes.

20 414. The conduct of this action as a class action presents far fewer management
 21 difficulties, far better conserves judicial resources and the parties' resources, and far more
 22 effectively protects the rights of each Class member than would piecemeal litigation. Compared
 23 to the expense, burdens, inconsistencies, economic infeasibility, and inefficiencies of
 24 individualized litigation, the challenges of managing this action as a class action are substantially
 25 outweighed by the benefits to the legitimate interests of the parties, the court, and the public of
 26 class treatment in this Court, making class adjudication superior to other alternatives, under Fed.
 27 R. Civ. P. 23(b)(3)(D).

28 415. Plaintiff is not aware of any obstacles likely to be encountered in the management

1 of this action that would preclude its maintenance as a class action. Rule 23 provides the Court with
 2 authority and flexibility to maximize the efficiencies and benefits of the class mechanism and
 3 reduce management challenges. The Court may, on motion of Plaintiff or on its own
 4 determination, certify nationwide, statewide, and/or multistate classes for claims sharing common
 5 legal questions; utilize the provisions of Rule 23(c)(4) to certify any particular claims, issues, or
 6 common questions of fact or law for class-wide adjudication; certify and adjudicate bellwether
 7 class claims; and utilize Rule 23(c)(5) to divide any class into subclasses.

8 **REALLEGATION AND INCORPORATION BY REFERENCE**

9 416. Plaintiff realleges and incorporates by reference all the preceding paragraphs and
 10 allegations of this Complaint, as though fully set forth in each of the following Claims for Relief
 11 asserted on behalf of the Class.

12 **CLAIMS FOR RELIEF**

13 **COUNT I**
 14 **Section 2 Sherman Act:**
Monopolization

15 417. Defendant has willfully acquired and maintained monopoly power in the relevant
 16 market for Social Advertising.

17 418. Facebook possesses monopoly power in the relevant market for Social
 18 Advertising. Facebook has the power to control prices or exclude competition in the relevant
 19 market.

20 419. Facebook's revenue share of the Social Advertising Market is approximately 80%;
 21 its share has been above 70% since 2015.

22 420. Defendant has willfully acquired and maintained monopoly power for Facebook
 23 in the relevant market for Social Advertising. As alleged herein Defendant has accomplished this
 24 by means of predatory, exclusionary, and anticompetitive conduct, including but not limited to:
 25 including but not limited to: removing friends, news feed, and other crucial APIs; refusing to sell
 26 social data to competing applications developers; extracting social data from competitors through
 27 threats of blacklisting and/or through nonconsensual data scraping; targeting competitors for

reciprocity or denial of API access; entering into whitelisting and data sharing agreements with competitors, including for large advertising purchases or the provision of user data; and engaging in covert surveillance of competitors' users in order to detect and ultimately acquire competitive threats before they became too formidable.

421. Defendant's conduct alleged above has had an anticompetitive effect in the relevant market for Social Advertising.

422. Defendant's conduct alleged herein has no legitimate business purpose or procompetitive effect.

423. Defendant's conduct has had a substantial effect on interstate commerce.

424. Plaintiff and the Class have been and will be injured in their business or property as a result of Defendant's conduct alleged herein.

425. Plaintiff and the Class have suffered and will suffer injury of the type that the antitrustlaws were intended to prevent. Plaintiff and the Class have been and will be injured by the harm to competition as a result of Defendant's conduct.

COUNT II

Section 2 Sherman Act: Attempted Monopolization

426. As alleged herein, Defendant has engaged in predatory, exclusionary, and anticompetitive conduct, including but not limited to: removing friends, news feed, and other crucial APIs; refusing to sell social data to competing applications developers; extracting social data from competitors through threats of blacklisting and/or through nonconsensual data scraping; targeting competitors for reciprocity or denial of API access; entering into whitelisting and data sharing agreements with competitors, including for large advertising purchases or the provision of user data; and engaging in covert surveillance of competitors' users in order to detect and ultimately acquire competitive threats before they became too formidable.

427. Defendant's conduct alleged above has had an anticompetitive effect in the relevant market for Social Advertising.

428. Defendant's conduct alleged herein has no legitimate business purpose or procompetitive effect.

429. Defendant has engaged in that conduct with the specific intent of monopolizing the relevant market for Social Advertising.

430. Defendant has engaged in that conduct with a dangerous probability of monopolizing the relevant market for Social Advertising.

431. Defendant's conduct has had a substantial effect on interstate commerce.

432. Plaintiff and the Class have been and will be injured in their business or property as a result of Defendant's conduct alleged herein.

433. Plaintiff and the Class have suffered and will suffer injury of the type that the antitrustlaws were intended to prevent. Plaintiff and the Class have been and will be injured by the harm to competition as a result of Defendant's conduct.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff requests that judgment be entered against Defendant and that the Court grant the following:

- A. Determine that this action may be maintained as a class action pursuant to Rules 23(a),(b)(2), (b)(3) and/or (c)(4) of the Federal Rules of Civil Procedure, and direct that reasonable notice of this action, as provided by Rule 23(c)(2), be given to the Class, and declare Plaintiff as the representative of the Class;
- B. Enter a judgment against Defendant in favor of Plaintiff and the Class;
- C. Award the Classes damages (i.e., three times their damages) in amount to be determined at trial;
- D. Award actual, compensatory, statutory, and consequential damages;
- E. Award equitable monetary relief, including restitution and disgorgement of all ill-gotten gains, and the imposition of a constructive trust upon, or otherwise restricting the proceeds of Defendant's ill-gotten gains, to ensure an effective remedy;
- F. Grant permanent injunctive relief pursuant to Section 16 of the Clayton Act to remedy the ongoing anticompetitive effects of Defendant's

unlawful conduct;

- G. Award pre-judgment and post-judgment interest at the highest rate allowed by law;
- H. Award Plaintiff and the Class their costs of suit, including reasonable attorneys' fees as provided by law; and
- I. Award such further and additional relief as the case may require and the Court may deem just and proper under the circumstances.

JURY DEMAND

Plaintiff demands a trial by jury on all claims so triable as a matter of right.

Respectfully submitted,

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